



THE HUNTING COMPANY

Plumbing
Heating and Engineering
Supplies



CATALOGUE NO.15

ROCHESTER, NEW YORK

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Vice-Pres.: M. S. Hunting
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Catalogue No. 15

The Hunting Co.

Distributors of
Plumbing, Heating, Gas,
Steam, Water and
Mill Supplies



Rochester, N.Y.

Office, Show Room and Store, 30 Exchange St.

Warehouse and R. R. Siding

127 Railroad St.

Machine Shop and Pipe Yard

23-25 Fourth St.

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BY
R. R. DONNELLEY & SONS CO



Office and Store
30 Exchange St.

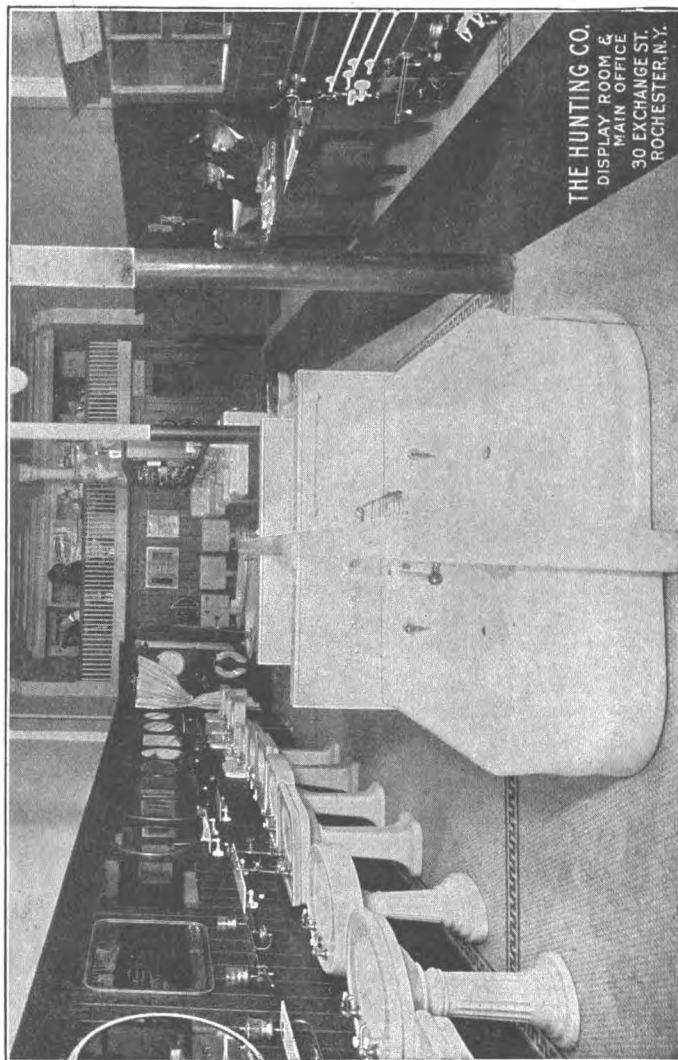
Our Warehouse at
127 Railroad Street,
40 feet by 165 feet, ex-
tending to R. R. switch
at rear where all car lots
are unloaded quickly
into warehouse.

Offices, store and show rooms
at 30 Exchange Street are 4 stories
and basement, 30x160 feet, extend-
ing back to Aqueduct Street which
has two entrances from Main Street
and one from Exchange Street, thus
providing parking space for our
customers.

Machine Shop and Pipe Yard
are located at No. 23-25 Fourth
Street.



Warehouse
127 Railroad St.



THE HUNTING CO.
DISPLAY ROOM &
MAIN OFFICE
30 EXCHANGE ST.
ROCHESTER, N.Y.

Main Office and Display Room, 30 Exchange Street

Architects, Merchant Plumbers and their customers are especially invited to visit our show rooms which we maintain for the advancement of modern sanitation, heating and ventilation.
"Every man owes some of his time to the upbuilding of the profession to which he belongs."

— THEODORE ROOSEVELT

FOREWORD

In presenting to our customers and friends this, our General Supply Catalogue No. 15, we have endeavored to show not only our well known serviceable goods, but also all new goods of merit to date in each respective line. With so many lines of goods, it would be impracticable to show and give data on every known article in each line, but we shall be glad to give any further information desired. It shall always be our aim to supply promptly the best quality of goods at the lowest market prices, not forgetting however that the lowest in price is not always the cheapest to buy.

The growth of The Hunting Company from its modest inception 30 years ago, has been due to its desire and ability to give everyone a square deal, and to handle only goods which are the best selection of the manufacturing world; to its direction by an organization imbued with the highest principles of business dealings and committed to the true conception of service. The increasing service requirements of modern Plumbing, Heating and Engineering installations keenly show the necessity for the highest grade materials and workmanship, and to progress with these requirements, we have experienced specialists in charge of our Departments of Plumbing Goods, Heating Goods, Engineering Specialties, Water Supply Systems, and our Show Rooms, who will be pleased to render all possible service.

Our future policy is to make every effort to render the fullest measure of service in appreciation of the patronage which has been so freely extended to us and to more closely cement the ties of our business relationships by a continuation of the established precedent of fair dealing, and the maintenance of the reputation now enjoyed for the quality of our goods.

THE HUNTING COMPANY

Important

General Information for the Trade

Attention is Called to the Following Well-Established Trade Customs

Pipe

Wrought iron pipe is a term used to distinguish wrought from cast pipe. It is construed to mean standard pipe, and is generally made of soft steel. Persons desiring to obtain pipe made from puddled iron, must designate genuine wrought iron pipe, for which an extra charge is made.

Damages

We guarantee materials sold, but only to the extent of supplying perfect goods for any found defective, and will not allow any claims for labor or consequential damages. The measure of damage shall be the price of any defective piece, such defective piece to be returned before credit will be given.

Returned Goods

When orders have been correctly filled, no credit will be allowed for goods returned, unless full explanation has been made to us and consent obtained. All goods returned after acceptance will be credited at the same price at which they were charged, less 10 per cent and all shipment expense.

Breakage

If an article is broken in transit, the condition of the package at its destination is no evidence of its original condition. When goods are shipped to a customer and have been received for by a Transportation Company, in good condition, the shipment immediately becomes the property of the consignee; no allowance will be made for breakage or loss in transit, and consignee must look to the Transportation Company for damages.

Crating and Cartage

We charge crating and cartage at cost.

Contracts, Sales and Prices

All agreements are contingent upon strikes, fires, accidents or delays beyond our control. All prices are subject to change without notice and all contracts and orders taken are subject to the approval of The Hunting Co.

Claims

All claims for deductions or shortages must be made within ten days from receipt of material.

INDEX

A

	Page
Acorn Flush Spreaders	141
Acorns , Brass, Railing	345
Malleable Iron, Railing	345
Air Cocks	411
Nozzles	414
Valves, Radiator	277, 278
Vents, Radiator	278
Altitude Gauges	409
Angle Valves, Brass, Jenkins	384
Valves, Brass, Ohio	385
Valves, Brass, Standard	383
Valves, Bronze, Lunkenheimer	380-382
Valves, Iron Body, Lunkenheimer	390, 391
Angles , Furnace Pipe	299, 300
Asbestocel Fireproof Paper	447
Asbestos Cement	447
Felt and Roll Board	447
Gaskets	451
Lead Joint Runners	487
Packing	450, 451
Pipe Covering	446
Range Boiler Jackets	200
Sheet Millboard	447
Ash Cans	493
Pit Doors	240
Augers , Closet	482
Sewer and Pipe, Flexible	482

B

Baby Baths, Porcelain	21
Back Pressure Valves	427
Backs , Gas Burner	349
Sink, Enamelled Iron	151
Bags , Tool, Plumbers'	483
Ball Cocks	112-114
Joints, Adjustable	36
Balls , Fuller	212
Tank, Rubber	209
Bands , Pipe, Cast Iron, Soil Pipe	235
Barbers' Hot Water Boilers	201
Lavatories, Enamelled Iron	72, 73
Bars , Extension, Pipe Hanger	374
Towel	178-180
Bases , Valve Box	322
Basin Clamps	194
Cocks, Compression	68
Cocks, Quick Compression	68, 186
Cocks, Self-closing	69
Gaskets, Rubber	210

	Page
Basin and Shampoo Cocks	71
Basins , Wash	78
Bath Cocks, Compression	26
Cocks, Fuller	26
Cocks, Quick Compression	25
Cocks and Shampoos, Combination	24
Cocks and Showers, Combination	24
Gaskets, Rubber	210
Mats	154
Overflow Washers, Rubber	209
Plug Washers, Rubber	210
Room Furnishings	175-183
Rooms, Model	1-3
Supply Pipes	27
Supply and Waste Fittings	22, 23
Traps, Cudell	219
Bath and Shower Fittings	29, 30
Baths , Baby, Porcelain	21
Child's, Porcelain	6
Enamelled Iron	7-18
Foot, Porcelain	6, 19, 20
Porcelain	4-6
Shower	31-35
Sitz, Porcelain	6, 19
Bead Chains	194
Beam Clamps	373
Bell Trap Cesspools	246, 247
Belting , Canvas	454
Cotton	454
Leather	452
Round	452
Rubber	453
Bending Pins	484
Springs	484
Bends , Cast Iron, Closet	239
Cast Iron, Soil Pipe	226, 227
Lead	222
Pipe, Steel	329, 330
Return, Brass, Iron Pipe Thread	351, 352
Return, Cast Iron, Screwed, Standard	357
Return, Malleable Iron	343
Y, Brass, Iron Pipe Thread	351, 352
Bends and Ferrules, Combination	221
Bibb Escutcheons, Brass	196
Flanges, Brass	196
Seat Dressers	486
Washers, Rubber	212
Bibbs , Compression	190, 191
Laundry Tray	185
Quick Compression	192

THE HUNTING CO.

Bib	Bibbs, Self-closing.	193
to	Wash Tray.	189
Cha	Bidets.	21
	Blades, Saw, Hack.	481
	Blow Torches.	488
	Blow-off Valves, Iron Body, Lunkenheimer.	402, 403
	Valves, Ohio.	385
	Boards, Drain, Sink.	153
	Boiler Brushes.	441
	Compound.	448
	Couplings, Brass.	201
	Couplings, Kewanee.	201
	Couplings, Malleable Iron.	348
	Drain Cocks.	189
	Elbows, Malleable Iron.	348
	Flanges, Cast Iron, Screwed, Standard.	364
	Jackets, Range, Asbestos.	200
	Repair.	486
	Stands, Range.	200
	Tubes.	334
	Union Tees, Malleable Iron.	348
Boilers,	Heating, American.	261-263
	Heating, Continental.	269
	Heating, Pebco.	264-267
	Heating, Pierce.	254
	Heating, Radio.	268
	Heating, Thucor.	255-260
	Hot Water, Barbers' Range.	201, 198, 199
Boilers	and Water Heaters, Range.	
	Gas, Combination.	202
	Bolt Caps, Closet.	115
	Bolts, Flange, Closet.	117
	Machine.	372
	Sink.	155
	Boots, Furnace Pipe.	299
	Borers, Tap.	484
	Bowls, Closet.	90
	Wash.	78
	Boxes, Roadway.	322
	Service.	323
	Valve.	322
	Brackets, Expansion Tank.	287
	Gas.	349
	Radiator.	272
	Sink.	155
Branch	Tees, Cast Iron, Standard.	360
	Branches, T, Cast Iron, Soil Pipe.	228, 229
	Ventilating, Cast Iron, Soil Pipe.	231
	Y, Cast Iron, Drainage.	243-245
	Y, Cast Iron, Screwed, Extra Heavy.	362
	Y, Cast Iron, Screwed, Standard.	356
	Y, Cast Iron, Soil Pipe.	230, 231
	Y, Malleable Iron.	342
Brass	Fittings, Cast Iron Pattern.	353
	Fittings, Iron Pipe Thread.	351, 352
	Fittings, Railing.	345
	Pipe.	350
	Bronze, Radiator.	449
	Brushes, Boiler.	441
	Brushes, Flue.	441
	Bubbling Cup Drinking Fountains.	81-84
	Cups, Drinking Fountain.	85
	Buckets, Fire.	493
	Water.	493
	Bulbs, Furnace.	212
	Mazda.	442
	Bumpers, Seat, Rubber.	210
	Burners, Garbage.	270
	Gas Fixture.	349
	Bushings, Brass, Iron Pipe Thread.	351, 352
	Cast Iron, Screwed, Standard.	358, 359
	Flush.	195
	Hose.	457
	Malleable Iron.	344
	Radiator.	286
	Solder.	195
	Waste and Vent.	195
	Butterfly Valves.	389
		C
	Cabinets, Medicine.	175
	Calking Irons.	485
	Candle Wick Packing.	451
	Candles, Plumbers'.	449
	Canopy Flanges, Brass.	196
	Cans, Ash.	493
	Galvanized.	493
	Garbage.	493
	Waste, Oily.	493
	Canvas Belting.	454
	Caps, Bolt, Closet.	115
	Brass, Iron Pipe Thread.	351, 352
	Cast Iron, Screwed, Standard.	358
	Drive, Well.	320
	Malleable Iron.	344
	Vent, Cast Iron, Soil Pipe.	235
	Casing, Well.	332, 333
	Cast Iron Drainage Fittings.	241-244
	Fittings, Flanged, Extra Heavy.	367
	Fittings, Flanged, Standard.	365, 366
	Fittings, Screwed, Extra Heavy.	362
	Fittings, Screwed, Long Turn.	361
	Fittings, Screwed, Standard.	354-359
	Soil Pipe.	225
	Soil Pipe Fittings.	226-238
	Ceiling Plates.	377
	Cellar Drainers.	251
	Traps.	246
	Cement, Asbestos.	447
	Iron, Smooth-on.	449
	Pipe Joint.	448, 449
	Cesspools, Bell Trap.	246, 247
	Hydrant.	247
	Chain, Jack.	375
	Safety.	194
	Chain Pipe Vises.	475, 476
	Pipe Wrenches.	475
	Stays.	194
	Chains, Bead.	194

THE HUNTING CO.

	Page
Chains, Pipe Hanging	375
Check Valves, Brass, Angle, Standard	383
Valves, Brass, Horizontal, Jenkins	384
Valves, Brass, Horizontal, Ohio	385
Valves, Brass, Horizontal, Standard	383
Valves, Brass, Swing, Jenkins	384
Valves, Brass, Swing, Standard	383
Valves, Brass, Vertical, Standard	383
Valves, Bronze, Angle, Lunkenheimer	386
Valves, Bronze, Horizontal, Lunkenheimer	386
Valves, Bronze, Swing, Lunkenheimer	387
Valves, Bronze, Vertical, Lunkenheimer	386
Valves, Iron Body, Swing, Lunkenheimer	387
Valves, Pump	321
Chemical Closet Storage Systems	124
Commodes	125
Child's Baths, Porcelain	6
Chisels	485
Clamps, Basin	194
Beam	373
Hose	458
Pipe, Water	378
Pipe Joint	379
Pipe Repair	379
Cleaner, Closet Bowl	448
Cleaners, Flue	441
Cleaning Compound	448
Cleanout Doors	240
Closet Accessories	115
Augers	482
Bends, Cast Iron	239
Bowl Cleaner	448
Bowls	90
Combinations	89, 91-109
Elbows, Rubber	209
Flange Bolts	117
Floor Flanges	117
Flush Connections, Brass	116
Screw Washers	117
Screws	117
Seats	119-123
Storage Systems, Chemical	124
Tanks	110, 111
Closets, Frost-proof	109
Water	89, 91-109
Cloths, Wiping	486
Cock Hole Covers	194
Wrenches, Steam	400
Cocks, Air	411
Ball	112-114
Basin, Compression	68
Basin, Quick Compression	68, 186
Basin, Self-closing	69
Bath, Compression	26
Bath, Fuller	26
Bath, Quick Compression	25
Corporation	214
Curb	214
Cocks, Drain, Boiler	189
Gauge	413
Iron	401
Pantry	70, 71
Service, Gas, Brass	400
Shampoo	70, 71
Sill, Compression	186, 189
Spring Key	412
Steam, Brass	400
Steam Gauge	411
Stop, Compression	186-188
Stop, Ground Key	213
Cocks and Shampoos; Bath, Combination	24
Cocks and Showers, Bath, Combination	24
Coil Coolers	88
Collars, Sink	155
Columns, Pipe, Wrought Iron	331
Water Gauge	406
Combinations, Closet	89, 91-109
Commodes, Chemical	125
Companion Flanges, Cast Iron, Extra heavy	370, 371
Flanges, Cast Iron, Standard	368, 369
Flanges, Cast Steel, Extra Heavy	370
Flanges, Malleable Iron, Extra Heavy	370
Compass Saws	481
Compasses, Plumbers'	484
Compound, Boiler	448
Cleaning	448
Compression Valves	188
Condensation Pumps	293
Conductor Pipe	490, 491
Strainers	491
Connections, Closet, Brass	115
Flush, Closet, Brass	116
Inlet, Urinal	140, 141
Outlet, Urinal	140
Siamese	460
Sink	65
Urinal	65
Coolers, Coil	88
Water	86, 88
Copper Floats	114
Pipe	350
Corks, Oil Cup	434
Corporation Cocks	214
Cotton Beltting	454
Waste	445
Countershafts, Pumping Jack	317
Couplings, Boiler, Brass	201
Boiler, Kewanee	201
Boiler, Malleable Iron	348
Brass, Iron Pipe Thread	351, 352
Cast Iron, Screwed, Standard	359
Flange Union, Lead	216
Hose	457, 458
Hydraulic	337
Malleable Iron	342
Pipe, Wrought	337
Rod, Pump	320

Cha
to
Cou

THE HUNTING CO.

**Cou
to
Ext**

	Page
Couplings, Slip Joint	195
Tank.....	207
Union.....	215
Water Back, Brass.....	216
Covering, Pipe, Sectional	446
Covers, Hole, Cock	194
Service Box.....	323
Trap, Soil Pipe.....	237, 238
Trap, Drum.....	197
Valve Box.....	322
Cross Valves, Brass, Ohio	385
Valves, Brass, Standard.....	383
Valves, Bronze, Lunkenthaler.....	381, 382
Valves, Iron Body, Lunkenthaler.....	390
Crosses, Brass, Cast Iron Pattern	353
Brass, Iron Pipe Thread.....	351, 352
Brass, Railing.....	345
Cast Iron, Flanged, Extra Heavy.....	367
Cast Iron, Flanged, Standard.....	365, 366
Cast Iron, Screwed, Extra Heavy.....	362
Cast Iron, Screwed, Long Turn.....	361
Cast Iron, Screwed, Standard.....	356
Cas Iron, Soil Pipe.....	232
Malleable Iron.....	341, 345, 346
Crossovers, Malleable Iron	342
Cudell Traps	219
Cups, Bubbling, Drinking Fountain	85
Force, Plumbers'.....	483
Grease.....	435-437
Oil.....	432-434
Priming.....	432
Soap, Lavatory.....	70
Curb Cocks	214
Curtain Rods, Shower	38
Snaps, Shower.....	38
Curtains, Shower	38
Cutters, Gauge Glass	408
Pipe.....	478, 479, 486
Cutting Machines, Pipe	471
Oil, Thread.....	449
Pipe.....	328
Cylinders, Pump	318
D	
Diaphragms, Rubber, Low Pressure ..	211
Dies, Pipe	465, 469
Dies and Stocks, Pipe, Armstrong ..	468
Pipe, Beaver.....	466, 467
Pipe, Malleable.....	469
Pipe, Toledo.....	463-465
Discs, Valve	384, 385
Dishes, Soap, Bath Room ..	177, 178, 183
Soap, Laundry Tray.....	174
Soap, Sink.....	186
Dividers, Plumbers'	484
Doors, Ash Pit	240
Cleanout.....	240
Drain Board Mats	153, 154
Boards, Sink.....	153
Cocks, Boiler.....	189
Pipe Solvent.....	449
Drainage Fittings, Cast Iron ..	241-245
Drainers, Cellar	251
Drains, Floor	248-250
Refrigerator.....	240
Roof.....	248
Shower.....	248, 249
Urinal.....	248
Urinal Trap.....	249
Dressers, Bibb Seat	486
Boxwood.....	484
Drift Plugs	484
Drills, Reamers and Taps	480
Shell.....	207
Drinking Fountain Heads	87
Fountains, Enamelled Iron.....	82-84
Fountains, Porcelain.....	85
Fountains, Vitreous China.....	79-81, 86
Fountains, Wall.....	87
Drive Caps, Well	320
Ferrules, Iron.....	215
Shoes, Well.....	320
Drops, Eaves Trough	492
Drum Trap Covers, Stamped Brass ..	197
Traps, Cast Iron.....	218
Traps, Lead.....	218
E	
Eaves Trough	492
Trough Hangers.....	491
Ejectors	416
Elbows, Brass, Cast Iron Pattern ..	353
Brass, Iron Pipe Thread.....	351, 352
Brass, Railing.....	345
Cast Iron, Drainage.....	241
Cast Iron, Flanged, Extra Heavy.....	367
Cast Iron, Flanged, Standard.....	365, 366
Cast Iron, Screwed, Extra Heavy.....	362
Cast Iron, Screwed, Long Turn.....	361
Cast Iron, Screwed, Standard.....	354, 355
Closet, Rubber.....	209
Conductor.....	490
Conductor Pipe.....	491
Furnace Pipe.....	299, 300
Malleable Iron.....	340, 344-346
Slip Joint.....	116, 195, 197
Soldering, Brass.....	197
Union, Malleable Iron.....	348
Union, Radiator.....	275
Waste, Bath.....	23
End Pieces, Eaves Trough	492
Engine Lubricators	429
Stops.....	419
Escutcheons, Bibb, Brass	196
Exhaust Pipe Heads	420
Expansion Joints	399
Rings, Hose.....	458
Tanks.....	287
Extension Bars, Pipe Hanger ..	374
Extensions, Roadway Box ..	322
Service Box.....	323
Valve Box.....	322
Extinguishers, Fire ..	443

THE HUNTING CO.

F	Page	Page	
Faucets , Mixing, Lavatory.....	70	Flange Unions, Cast Iron.....	363
Shampoo.....	70	Unions, Jefferson.....	347
Sink, Quaturn.....	184	Unions, Malleable Iron.....	363
Sink, Quick Compression.....	185, 186	Flanges , Bibb, Brass.....	196
Feet , Radiator.....	286	Blind, Cast Iron, Extra Heavy.....	370
Felt , Hair.....	447	Boiler, Cast Iron, Screwed, Standard.....	364
Felt and Roll Board, Asbestos.....	447	Brass, Railing.....	345
Ferrenewo Valves, Iron Body, Lunkenheimer.....	390	Canopy, Brass.....	196
Ferrules , Brass.....	215	Companion, Cast Iron, Extra Heavy.....	370, 371
Combination.....	221	Companion, Cast Iron, Standard.....	368, 369
Drive, Iron.....	215	Companion, Cast Steel, Extra Heavy.....	370
Trap Screw.....	215	Companion, Malleable Iron, Extra Heavy.....	370
Union.....	215	Floor, Cast Iron, Screwed, Standard.....	364
Ferrules and Bends , Combination.....	221	Floor, Closet.....	117
Filters , Oil.....	438, 439	Malleable Iron, Railing.....	345, 346
Fire Extinguishers	443	Spud, Brass.....	196
Hose.....	456	Flashes , Roof, Adjustable.....	490
Hydrants.....	325	Flax Packing.....	451
Pails.....	493	Float Rods.....	114
Pots.....	488	Valves.....	425
Fireproof Paper, Asbestocel.....	447	Floats , Copper.....	114
Fittings , Bath and Shower.....	29, 30	Floor Flange Gaskets, Rubber.....	209
Brass, Cast Iron Pattern.....	353	Drains.....	248-250
Brass, Iron Pipe Thread.....	351, 352	Flanges, Cast Iron, Screwed, Standard.....	364
Brass, Railing.....	345	Flanges, Closet.....	117
Cast Iron, Drainage.....	241-245	Plates.....	377
Cast Iron, Flanged, Extra Heavy.....	367	Plates, Cast Iron, Soil Pipe.....	234
Cast Iron, Flanged, Standard.....	365, 366	Flue Brushes.....	441
Cast Iron, Screwed, Extra Heavy.....	362	Cleaners.....	441
Cast Iron, Screwed, Long Turn.....	361	Scrapers.....	441
Cast Iron, Screwed, Standard.....	354-359	Flush Bushings.....	195
Cast Iron, Soil Pipe.....	226-238	Connections, Closet, Brass.....	116
Furnace Pipe.....	299, 300	Pipes, Urinal.....	139
Gas Fixture.....	349	Pipes, Water Closet.....	118
Laundry Tray.....	174	Spreaders, Acorn.....	141
Malleable Iron.....	338-344, 348	Valves, Closet Tank.....	114, 115
Malleable Iron, Classification of.....	338, 339	Valves, Royal.....	141
Malleable Iron, Railing.....	345, 346	Followers , Malleable Iron.....	342
Return, Vapor.....	289	Foot Baths, Porcelain.....	6, 19, 20
Soldering, Brass.....	197	Valves and Strainers.....	321
Supply and Waste, Bath.....	22, 23	Force Cups, Plumbers' Pumps, Plumbers'.....	483, 482
Supply and Waste, Hospital.....	76, 77	Fountains , Drinking, Enamelled Iron.....	82-84
Supply and Waste, Lavatory.....	64	Drinking, Porcelain.....	85
Urinal.....	139-141	Drinking, Vitreous China.....	79-81, 86
Urinal, Slip Joint.....	197	Drinking, Wall.....	87
Vent, Cast Iron, Soil Pipe.....	240		
Wash Tray, Malleable Iron.....	344		
Fittings Wrenches.....	475		
Frames , Laundry Tray.....	174		
Saw, Hack.....	481		
Sink.....	155		
Fresh Air Inlets , Cast Iron, Soil Pipe.....	240		
Fuller Repairs.....	212		
Furnace Bulbs.....	212		
Pipe.....	299, 300		
Furnaces , Heating, Pipeless.....	295, 296		
Plumbers'.....	488		
Furnishings , Bath Room.....	175-183		
Fusible Plugs.....	414		
Flange Bolts, Closet.....	117		
Union Couplings, Lead.....	216		

**Fau
to
Gas**

G

Garbage Burners.....	270
Cans.....	493
Gas Brackets.....	349
Fixture Burners.....	349
Fixture Fittings, Brass.....	349
Pipe.....	326, 327
Pipe Hooks.....	376
Service Cocks, Brass.....	400
Gaskets , Asbestos.....	451
Basin, Rubber.....	210
Bath, Rubber.....	210
Eclipse.....	451

THE HUNTING CO.

	Page
Gas	
Gaskets, Floor Flange, Rubber	209
Sink, Rubber	210
to	
Gate Valves, Brass, Jenkins	384
Valves, Brass, Standard	398
Valves, Bronze, Handy	389
Valves, Bronze, Lunkenheimer	392
Valves, Iron Body, Crane	397
Valves, Iron Body, Handy	389
Valves, Iron Body, Lunkenheimer	393-396
Gauge Cocks	413
Glass Cutters	408
Glass Washers, Rubber	211
Glasses	408
Gauges , Altitude	409
Compound	409
Pressure	409
Vacuum	409
Vapor Heating	409
Water	407
Generators , Heat	282
Hot Water	286
Glasses , Gauge	408
Lubricator	408
Oil Cup	434
Globe Valves, Brass, Jenkins	384
Valves, Brass, Ohio	385
Valves, Brass, Standard	383
Valves, Bronze, Lunkenheimer	380-382
Valves, Iron Body, Lunkenheimer	390, 391
Goosenecks , Lead	214
Governors , Pump	423
Grease Cups	435-437
Traps	217
Grips , Plumbers'	483
Guards , Rim, Sink	154
H	
Hack Saw Blades	481
Saw Frames	481
Saw Tools, Rotary	283
Hair Felt	447
Hand Rails	177, 178
Handles , Valve, Radiator	277
Hangers , Eaves Trough	491
Ox Bow	375
Pipe	374-376
Screw Eye	375
Heads , Drinking Fountain	85, 87
Pipe, Exhaust	420
Shower	36, 37
Windmill	311
Heat Generators	282
Regulators	279
Heaters , Water, Auxiliary	283
Water, Coal, Kelmac	252
Water, Coal, Phaeton	285
Water, Gas, Augmere	205
Water, Gas, Lawson	208
Water, Gas, Lion	206
Water, Gas, Marvel	202
Water, Gas, Royal	202
Water, Gas, Sands	203, 205
I	
Increasers , Cast Iron, Soil Pipe	233, 234
Injectors	415
Inlet Connections, Urinal	140

THE HUNTING CO.

	Page
Inlets, Fresh Air, Cast Iron, Soil Pipe	235, 240
Insertable Joints, Sisson	238
Insulation, Pipe, Sectional	446
Iron Cement	449
Cocks	401
Drive Ferrules	215
Irons, Calking	485

J

Jack Chain	375
Jackets, Boiler, Range, Asbestos	200
Jacks, Pump	317
Joint Runners, Lead, Asbestos	487
Joints, Ball, Adjustable	36
Expansion	399
Insertable, Sisson	238
Josam Drains	248, 249

K

Keys, Service Box	323
Kitchen Sinks, Cast Iron	152
Sinks, Enameled Iron	143-150
Sinks, Porcelain	142

L

Ladies, Melting	487
Pouring	487
Lag Screws, Pipe Hanger	374
Lamps, Mazda	442
Lard Oil	449
Laterals, Cast Iron, Flanged, Extra	
Heavy	367
Cast Iron, Flanged, Standard	366
Laundry Tray Bibbs	185
Tray Fittings	174
Tray and Sink Combinations, Enameled Iron	163-165
Trays, Alberene Stone	173
Trays, Enameled Iron	167-171
Trays, Granitine	172
Trays, Porcelain	166
Lava Tips, Gas Burner	349
Lavatories, Barbers', Enameled Iron	72, 73

Battery, Enameled Iron	62, 63
Enameled Iron	50-63, 72, 73
Surgeons', Vitreous China	74
Vitreous China	40-48, 74
Lavatories and Sinks, Hospital, Porcelain	
Supply Pipes	27
Supply and Waste Fittings	64
Traps, Brass	65
Wastes, Continuous	67
Lead, Bar	224
Cake	224
Pig	224
Sheet	224

	Page
Lead Bends	222
Joint Runners, Asbestos	487
Pipe	223
Traps	220, 221
Leather Belting	452
Leathers, Cylinder Cap	320
Plunger, Capped	320
Legs, Laundry Tray	174
Liquid, Bronzing	449
Fire Extinguisher	443
Liquid Soap Holders	183
Locknut Nipples	337
Locknuts, Brass, Iron Pipe Thread	351, 352
Cast Iron, Screwed, Standard	358
Malleable Iron	344
Long Screws, Wrought	337
Loose Pulley Oilers	434
Lubricator Glasses	408
Lubricators, Engine	429
Mechanical	431
Sight-feed	428

M

Machine Bolts	372
Machinists' Vises	477
Mack Gaskets	210
Malleable Iron Fittings	338-344, 348
Fittings, Classification of	338, 339
Fittings, Railing	345, 346
Manholes, Sewer	247
Manicuring Tables, Vitreous China	49
Manifolds, Cast Iron, Standard	360
Mats, Bath	154
Sink	154
Drain Board	153, 154
Mazda Lamps	442
Medicine Cabinets	175
Mill Hose	456
Millboard, Sheet, Asbestos	447
Mineral Wool	447
Mirrors, Bath Room	176
Miter, Eaves Trough	492
Mixing Faucets, Lavatory	70
Valves	76
Mixometer Valves	76
Monkey Wrenches	473, 474

N

Needle Valves, Bronze, Lunkenheimer	388
Nipple Wrenches, Valve, Union	473, 480
Nipples, Brass, Iron Pipe Thread	351
Hose	457
Locknut	337
Pipe, Brass	350
Pipe, Wrought	335, 336
Soldering	216
Tank	337
Nozzles, Air	414
Hose	459
Supply, Lavatory	77

In
to
Noz

THE HUNTING CO.

**Nut
to
Plu**

Nuts, Brass	212
Lock, Malleable Iron	344
Slip Joint	195

O

Oakum Packing	445
Offsets, Cast Iron, Screwed, Standard	359
Cast Iron, Soil Pipe	233
Oil, Lard	449
Oil Cup Corks	434
Cup Glasses	434
Cups	432-434
Cutting, Thread	449
Filters	438, 439
Pumps, Hand	430
Pumps, Mechanical	431
Separators	421
Oilers, Brass	440
Pulley, Loose	434
Shaft	434
Steel	440
Oily Waste Cans	493
Outlet Connections, Urinal	140
Overflow and Wastes, Bath	23
Lavatory	64

P

Packers, Syphon, Rubber	210
Packing, Asbestos	450, 451
Cylinder, Pump	320
Flax	451
Oakum	445
Piston	451
Rope, Asbestos	451
Sheet	450
Wick, Asbestos	451
Wick, Candle	451
Pails, Fire	493
Water	493
Paint, Asphaltum, Black	449
Pantry Cocks	70, 71
Sinks, Copper	156
Sinks, German Silver	156
Sinks, Porcelain	157
Paper, Fireproof, Asbestocel	447
Paste, Soldering	448
Pedestals, Radiator	286
Pillars, Brass, Gas Burner	349
Pins, Bending	484
Cutter Wheel	479
Turn	484
Pipe, Brass	350
Conductor	490, 491
Copper	350
Cutting	328
Furnace	299, 300
Gas	326, 327
Lead	223
Soil, Cast Iron	225
Steam	326, 327
Threading	328

Page	Page
Pipe, Water	326, 327
Wrought	326, 327
Pipe Bands, Cast Iron, Soil Pipe	235
Bends, Steel	329, 330
Clamps, Water	378
Columns, Wrought Iron	331
Couplings, Wrought	337
Coverings, Sectional	446
Cutters	478, 479, 486
Cutting Machines	471
Dies	465, 469
Fittings, Soil, Cast Iron	226-238
Hangers	374-376
Heads, Exhaust	420
Hooks, Gas	376
Hooks, Soil	234, 376
Hooks, Wire	376
Joint Cement	448, 449
Joint Clamps	379
Nipples, Brass	350
Nipples, Wrought	335, 336
Reamers	480
Repair Clamps	379
Rests, Cast Iron, Soil Pipe	234
Saddles, Steam	378
Solvent, Drain	449
Stocks and Dies, Armstrong	468
Stocks and Dies, Beaver	466, 467
Stocks and Dies, Malleable	469
Stocks and Dies, Toledo	463-465
Straps	376
Taps	480
Thread Protectors	328
Threading Machines, Forbes	471
Threading Machines, Landis	472
Threading Machines, Williams	470
Threading Tools, Armstrong	468
Threading Tools, Beaver	466, 467
Threading Tools, Malleable	469
Threading Tools, Toledo	463-465
Vises	475-477
Wrenches	473-475
Pipe and Sewer Augers, Flexible	482
Pipes, Flush, Urinal	139
Flush, Water Closet	118
Hose	459
Supply, Bath	27
Supply, Lavatory	27
Supply, Water Closet	118
Piston Packing	451
Plates, Ceiling	377
Floor	377
Floor, Cast Iron, Soil Pipe	234
Hook	373
Wall, Malleable Iron	344
Pliers, Expanding	484
Pneumatic Storage Tanks	310
Tires	444
Water Systems, Dayton	301-306
Water Systems, Leader	308
Water Systems, Milwaukee	309
Plugs, Brass, Iron Pipe Thread	351, 352
Cast Iron, Screwed, Standard	358

THE HUNTING CO.

	Page	Page	
Plugs, Cast Iron, Soil Pipe	235	Rails, Hand	177, 178
Drift	484	Range Boilers	198, 199
Fusible	414	Rapid Tap Plugs	486
P. O.	65	Reamers, Burring	480
Rapid Tap	486	Pipe	480
Wash Tray	174	Pipe End	480
Plumbers' Friends	483	Taps and Drills	480
Tools	481-487	Receivers, Vapor	289
Points, Well	319	Receptors, Shower	39
Pop Safety Valves	405	Reducers, Cast Iron, Flanged, Extra	
Pots, Fire	488	Heavy	367
Pouring	487	Cast Iron, Flanged, Standard	366
Solder	487	Cast Iron, Screwed, Standard	358
Pressure Gauges	409	Cast Iron, Soil Pipe	235
Reducing Valves	425, 426	Hose	457
Regulating Valves	423, 424	Spud, Brass	116
Regulators	112	Reducing Valves, Pressure	425, 426
Priming Cups	432	Refill Tubes, Closet Tank	115
Protectors, Thread, Pipe	328	Refrigerator Drains	240
Pulley Oilers, Loose	434	Registers	297, 298
Pulls, Closet	115	Regrinding Valves, Bronze, Lunkenthaler	380, 386, 387
Pump Cylinders	318	Valves, Iron Body, Lunkenthaler	387, 390
Governors	423	Regulating Valves, Pressure	423, 424
Jacks	317	Regulators, Heat	279
Rod Couplings	320	Pressure	112
Rods, Steel	320	Vapor	291
Standards	314	Water	280
Valves, Rubber	211	Relief Valves, Water	405, 426
Pumps, Bracket	316	Remover, Rust	448
Condensation	293	Renewo Valves, Bronze, Lunkenthaler	381, 382
Electric, Dayton	301-306	Rests, Pipe, Cast Iron, Soil Pipe	234
Electric, Leader	308	Return Bends, Brass, Iron Pipe	
Force, Hand	311, 313, 315	Thread	351, 352
Force, Plumbers'	482	Bends, Cast Iron, Screwed, Standard	357
Force, Windmill	313	Bends, Malleable Iron	343
Lift, Hand	312	Fittings, Vapor	289
Lift, Windmill	312	Traps, Vapor	291
Oil, Hand	430	Rim Guards, Sink	154
Oil, Mechanical	431	Rings, Expansion, Hose	458
Pitcher Spout	315, 316	Roadway Boxes	322
Steam	422	Robe Hooks	177, 182
Suction, Cistern	316	Rod Couplings, Pump	320
Test, Plumbers'	486	Rods, Curtain, Shower	38
Vacuum	294	Float	114
Putty	449	Pump, Steel	320
R			
Racks, Hose	461, 462	Sewer	482
Radiator Air Valves	277, 278	Threaded, Brass	117
Air Vents	278	Roll Board and Felt, Asbestos	447
Brackets	272	Rolls, Tool, Plumbers'	483
Bronze	449	Roof Drains	248
Bushings	286	Flashes, Adjustable	490
Feet	286	Rooms, Bath, Model	1-3
Pedestals	286	Rope Packing, Asbestos	451
Traps	290, 419	Rotary Hack Saw Tools	283
Union Elbows	275	Rubber Belting	453
Valve Handles	277	Sundries	209-212
Valve Wheels	277	Rubbers, Seat Hinge	209
Valves	275, 276	Test Plug	211
Radiators, Cast Iron	271-274	Runners, Joint, Lead, Asbestos	487
Railing Fittings, Brass	345	Rust Remover	448
Fittings, Malleable Iron	345, 346		

Pl
to
Rus

THE HUNTING CO.

S	Page	Page
Sad		
Saddle Hubs, Connolly.....	238	155
Saddles, Pipe, Steam.....	378	210
Safety Chain.....	194	154
Valves, Pop.....	405	154
Valves, Non-return.....	404	154
Saw Blades, Hack.....	481	154
Frames, Hack.....	481	154
Tools, Hack, Rotary.....	283	154
Saws, Compass.....	481	154
Scales, Bath Room.....	183	142
Scrapers, Flue.....	441	156
Tube.....	441	156
Screw Washers, Closet.....	117	156
Screws, Brass.....	212	156
Closet.....	117	156
Lag, Pipe Hanger.....	374	156
Long, Wrought.....	337	156
Seat Bumpers, Rubber.....	210	156
Seats, Closet.....	119-123	156
Separators, Oil.....	421	156
Steam.....	421	156
Septic Tanks.....	125, 126	156
Service Boxes.....	323	156
Cocks, Gas, Brass.....	400	156
Sewage Disposal Systems.....	125, 126	156
Sewer Manholes.....	247	156
Rods.....	482	156
Traps.....	247	156
Shaft Oilers.....	434	156
Shampoo Cocks.....	70, 71	156
Faucets.....	70	156
Sprays.....	37	156
Shampoos and Cocks, Bath, Combination.....	24	156
Shave Hooks.....	484	156
Shell Drills.....	207	156
Shelves, Bath Room.....	178, 179, 181	156
Shoes, Conductor.....	490	156
Conductor Pipe.....	491	156
Drive, Well.....	320	156
Shower Baths.....	31-35	156
Curtains.....	38	156
Drains.....	248, 249	156
Heads.....	36, 37	156
Receptors.....	39	156
Valves, Compression.....	37	156
Valves, Self-closing.....	36	156
Shower and Bath Fittings.....	29, 30	156
Showers and Cocks, Bath, Combination.....	24	156
Siamese Connections.....	460	156
Sight-feed Lubricators.....	428	156
Sill Cocks, Compression.....	186, 189	156
Sitz Baths, Porcelain.....	6, 19	156
Sink Backs, Enamelled Iron.....	151	156
Bolts.....	155	156
Brackets.....	155	156
Collars.....	155	156
Connections.....	65	156
Drain Boards.....	153	156
Faucets, Quaturn.....	184	156
Faucets, Quick Compression.....	185, 186	156
Sink Frames.....		155
Gaskets, Rubber.....		210
Mats.....		154
Rim Guards.....		154
Strainers.....		152, 155
Traps, Cast Iron.....		218
Sink and Laundry Tray Combinations.....		163-165
Enamelled Iron.....		163-165
Sinks, Kitchen, Cast Iron.....		152
Kitchen, Enamelled Iron.....		143-150
Kitchen, Porcelain.....		142
Pantry, Copper.....		156
Pantry, German Silver.....		156
Pantry, Porcelain.....		157
Slop, Enamelled Iron.....		160-162
Slop, Porcelain.....		159
Wash, Enamelled Iron.....		158
Sinks and Lavatories, Hospital, Porcelain.....		75
Sleeves, Cast Iron, Soil Pipe.....		235
Soldering, Brass.....		197
Slip Joint Couplings.....		195
Joint Elbows.....		116, 195, 197
Joint Nuts.....		195
Joint Tees.....		197
Joint Washers, Rubber.....		209
Slop Hoppers.....		247
Sinks, Enamelled Iron.....		160-162
Sinks, Porcelain.....		159
Smooth-on Cement.....		449
Snaps, Curtain, Shower.....		38
Soap Cups, Lavatory.....		70
Dishes, Bath Room.....		177, 178, 183
Dishes, Laundry Tray.....		174
Dishes, Sink.....		186
Holders, Liquid.....		183
Soil Pipe, Cast Iron.....		225
Pipe Fittings, Cast Iron.....		226-238
Pipe Hooks.....		376
Solder.....		224
Solder Bushings.....		195
Pots.....		487
Soldering Fittings, Brass.....		197
Nipples.....		216
Paste.....		448
Unions.....		216
Solvent, Pipe, Drain.....		449
Sprays, Shampoo.....		37
Spreaders, Flush, Acorn.....		141
Spring Key Cocks.....		412
Springs, Bending.....		484
Spud Flanges, Brass.....		196
Reducers, Brass.....		116
Stalls, Urinal, Marble.....		136
Urinal, Porcelain.....		127-133
Urinal, Slate.....		135-137
Standards, Pump.....		314
Stands, Boiler, Range.....		200
Stays, Chain.....		194
Steam Cock Wrenches.....		400
Cocks, Brass.....		400
Gauge Cocks.....		411
Hose.....		455

THE HUNTING CO.

	Page	Page
Steam Pipe	326, 327	Ste
Pipe Saddles	378	to
Pumps	422	Tro
Separators	421	
Traps	417, 418	
Whistles	410	
Stock Tanks, Steel	489	
Stocks and Dies, Pipe, Armstrong	468	
Pipe, Beaver	466, 467	
Pipe, Malleable	469	
Pipe, Toledo	463-465	
Stop Cocks, Compression	186-188	
Cocks, Ground Key	213	
Stop and Waste Cocks, Compression	186	
Cocks, Ground Key	213	
Stoppers, Rubber	209	
Stops, Engine	419	
Storage Tanks, Hot Water	253	
Tanks, Pneumatic	310	
Strainers, Cast Iron, Soil Pipe	234	
Conductor	491	
Sink	152, 155	
Strainers and Foot Valves	321	
Straps, Pipe	376	
Pipe Hanger	375	
Street Washers	324	
Suction Pumps, Cistern	316	
Pumps, Plumbers'	482	
Supply Pipes, Bath	27	
Pipes, Lavatory	27	
Pipes, Water Closet	118	
Supply and Waste Fittings, Bath	22, 23	
Fittings, Hospital	76, 77	
Fittings, Lavatory	64	
Surgeons' Lavatories, Vitreous China	74	
Syphon Packers, Rubber	210	
Washers, Rubber	210	
T		
T Branches, Cast Iron, Soil Pipe	228, 229	
Tables, Manicuring, Vitreous China	49	
Tank Balls, Rubber	209	
Bulb Wires	115	
Couplings	207	
Nipples	337	
Tanks, Closet	110, 111	
Expansion	287	
Septic	125, 126	
Stock, Steel	489	
Storage, Hot Water	253	
Storage, Pneumatic	310	
Urinal	111, 138	
Tap Borers	484	
Taps, Pipe	480	
Reamers and Drills	480	
Tees, Branch, Cast Iron, Standard	360	
Brass, Cast Iron Pattern	353	
Brass, Iron Pipe Thread	351, 352	
Brass, Railing	345	
Cast Iron, Drainage	242	
Cast Iron, Flanged, Extra Heavy	367	
Cast Iron, Flanged, Standard	365, 366	
Tees, Cast Iron, Screwed, Extra Heavy	362	
Cast Iron, Screwed, Long Turn	361	
Cast Iron, Screwed, Standard	355, 359	
Furnace Pipe	299	
Malleable Iron	341, 344-346	
Railing	345, 346	
Slip Joint	197	
Soldering, Brass	197	
Union, Malleable Iron	348	
Test Plug Rubbers	211	
Pumps, Plumbers'	486	
Thermometers	287	
Thread Cutting Oil	449	
Protectors, Pipe	328	
Threading Machines, Pipe, Forbes	471	
Machines, Pipe, Landis	472	
Machines, Pipe, Williams	470	
Pipe	328	
Tools, Pipe, Armstrong	468	
Tools, Pipe, Beaver	466, 467	
Tools, Pipe, Malleable	469	
Tools, Pipe, Toledo	463-465	
Throttle Valves	389	
Tin, Bar	224	
Pig	224	
Tips, Lava, Gas Burner	349	
Tires, Pneumatic	444	
Toilet Paper Holders	177, 178, 182	
Tongs, Pipe, Chain	475	
Tool Bags, Plumbers'	483	
Rolls, Plumbers'	483	
Tools, Saw, Hack, Rotary	283	
Tooth Brush Holders	178	
Torches, Blow	488	
Towel Bars	178-180	
Trap Covers, Soil Pipe	237, 238	
Covers, Drum	197	
Ferrules	215	
Traps, Anti-syphon	65, 219	
Bath, Cudell	219	
Cast Iron, Drainage	242	
Cast Iron, Soil Pipe	236, 237	
Cellar	246	
Clean Sweep	66	
Drum	218	
Grease	217	
Lavatory, Brass	65	
Lead	220, 221	
Non-syphon	221	
Radiator	290, 419	
Return, Vapor	291	
Sewer	247	
Sink, Cast Iron	218	
Slop Sink	162	
Steam	417, 418	
Urinal	140	
Tray and Sink Combinations, Laundry, Enameled Iron	163-165	
Trays, Laundry, Alberene Stone	173	
Laundry, Enameled Iron	167-171	
Laundry, Granitine	172	
Laundry, Porcelain	166	
Troughs, Eaves	492	

THE HUNTING CO.

**Tub
to
Val**

	Page
Tub and Sink Combinations, Laundry, Enameled Iron	163-165
Tube Scrapers	441
Tubes, Boiler	334
Inner	444
Overflow, Flush Valve	115
Refill, Closet Tank	115
Waste	194
Tubs, Baby, Porcelain	21
Bath, Enameled Iron	7-18
Bath, Porcelain	46
Foot, Porcelain	19, 20
Laundry, Alberene Stone	173
Laundry, Enameled Iron	167-171
Laundry, Granitine	172
Laundry, Porcelain	166
Sitz, Porcelain	19
Tumbler Holders	178, 182
Tumblers	177, 178, 182
Turn Pins	484

U

Union Couplings	215
Elbows, Malleable Iron	348
Elbows, Radiator	275
Ferrules	215
Tees, Malleable Iron	348
Valve Nipple Wrenches	473, 480
Washers, Rubber	211
Unions, Brass, Iron Pipe Thread	352
Flange, Cast Iron	363
Flange, Jefferson	347
Flange, Malleable Iron	363
Jefferson	347, 363
Malleable Iron	347, 363
Soldering	216
Standard	347
Urinal Connections	65
Drains	248
Fittings	139-141
Fittings, Slip Joint	197
Stalls, Marble	136
Stalls, Porcelain	127-133
Stalls, Slate	135-137
Tanks	111, 138
Trap Drains	249
Traps	140
Urinals, Vitreous China	134, 138

V

Vacuum Gauges	409
Pumps	294
Valve Boxes	322
Discs	384, 385
Handles, Radiator	277
Nipple Wrenches, Union	473, 480
Wheels, Kantsplit	384
Wheels, Radiator	277
Valves, Air, Radiator	277, 278
Angle, Brass, Jenkins	384
Angle, Brass, Ohio	385

	Page
Valves, Angle, Brass, Standard	383
Angle, Bronze, Lunkenthaler	380-382
Angle, Iron Body, Lunkenthaler	390, 391
Back Pressure	427
Blow-off, Iron Body, Lunkenthaler	402, 403
Blow-off, Ohio	385
Butterfly	389
Check, Brass, Angle, Standard	383
Check, Brass, Horizontal, Jenkins	384
Check, Brass, Horizontal, Ohio	385
Check, Brass, Horizontal, Standard	383
Check, Brass, Swing, Jenkins	384
Check, Brass, Swing, Standard	383
Check, Brass, Vertical, Standard	383
Check, Bronze, Angle, Lunkenthaler	386
Check, Bronze, Horizontal, Lunkenthaler	386
Check, Bronze, Swing, Lunkenthaler	387
Check, Bronze, Vertical, Lunkenthaler	386
Check, Iron Body, Swing, Lunkenthaler	387
Check, Pump	321
Compression	188
Cross, Brass, Ohio	385
Cross, Brass, Standard	383
Cross, Bronze, Lunkenthaler	381, 382
Cross, Iron Body, Lunkenthaler	390
Ferenewo, Iron Body, Lunkenthaler	390
Float	425
Flush, Closet Tank	114, 115
Flush, Royal	141
Gate, Brass, Jenkins	384
Gate, Brass, Standard	398
Gate, Bronze, Handy	389
Gate, Bronze, Lunkenthaler	392
Gate, Iron Body, Crane	397
Gate, Iron Body, Handy	389
Gate, Iron Body, Lunkenthaler	393-396
Globe, Brass, Jenkins	384
Globe, Brass, Ohio	385
Globe, Brass, Standard	383
Globe, Bronze, Lunkenthaler	380-382
Globe, Iron Body, Lunkenthaler	390, 391
Hose	460
Mixing	76
Mixometer	76
Needle, Bronze, Lunkenthaler	388
Pump, Rubber	211
Radiator	275, 276
Reducing	425, 426
Regrinding, Bronze, Lunkenthaler	380, 386, 387
Regrinding, Iron Body, Lunkenthaler	387, 390
Regulating, Pressure	423, 424
Relief, Water	405, 426
Renewo, Bronze, Lunkenthaler	381, 382
Safety, Non-return	404
Safety, Pop	405
Shower, Compression	37
Shower, Self-closing	36

THE HUNTING CO.

	Page
Valves, Steam Whistle	410
Supply, Hospital.....	77
Throttle.....	389
Vapor.....	289
Vent, Float.....	290
Waste.....	76, 77
Valves and Strainers, Foot	321
Vapor Heating Gauges	409
Receivers.....	289
Regulators.....	291
Return Fittings.....	289
Return Traps.....	291
Valves.....	289
Vehicle Washers	460
Vent Caps, Cast Iron, Soil Pipe	235
Fittings, Cast Iron, Soil Pipe.....	240
Valves, Float.....	290
Valves, Vapor.....	289
Vent and Waste Bushings	195
Ventilating Branches, Cast Iron, Soil Pipe	231
Ventilators	490
Vents, Air, Radiator	278
Vises, Machinists'	477
Pipe.....	475-477
W	
Wall Plates, Malleable Iron	344
Wash Basins	78
Sinks, Enamelled Iron.....	158
Tray Bibbs.....	189
Tray Fittings, Malleable Iron.....	344
Tray Plugs.....	174
Washers, Bath Overflow, Rubber	209
Bath Plug, Rubber.....	210
Bibb, Rubber.....	212
Gauge, Glass, Rubber.....	211
Hose, Rubber.....	211
Screw, Closet.....	117
Slip Joint, Rubber.....	209
Street.....	324
Siphon, Rubber.....	210
Union, Rubber.....	211
Vehicle.....	460
Waste, Rubber.....	210
Waste, Cotton	445
Waste Cans, Oily	493
Pipes, Lead.....	223
Tubes.....	194
Valves.....	76, 77
Washers, Rubber.....	210
Waste and Supply Fittings, Bath	22, 23
Fittings, Hospital.....	76, 77
Fittings, Lavatory.....	64
Waste and Vent Bushings	195
Wastes, Laundry Tray	174
Lavatory, Continuous.....	67
Water Back Couplings, Brass	216
Closet Bowls.....	90
Closet Flush Pipes.....	118
Water Closet Seats	119-123
Closet Supply Pipes.....	118
Closet Tanks.....	110, 111
Closets.....	89, 91-109
Coolers.....	86, 88
Gauge Columns.....	406
Gauges.....	407
Heaters, Auxiliary.....	283
Heaters, Coal, Kelmac.....	252
Heaters, Coal, Phaeton.....	285
Heaters, Gas, Augmere.....	205
Heaters, Gas, Lawson.....	208
Heaters, Gas, Lion.....	206
Heaters, Gas, Marvel.....	202
Heaters, Gas, Royal.....	202
Heaters, Gas, Sands.....	203, 205
Heaters, Kerosene, Florence.....	203
Heaters, Kerosene, Holyoke.....	204
Heaters, Kerosene, Sands.....	205
Heaters, Steam.....	251
Heaters, Steam, Taco.....	284
Hose.....	455
Pails.....	493
Pipe.....	326, 327
Pipe Clamps.....	378
Regulators.....	280
Relief Valves.....	405, 426
Systems, Pneumatic, Dayton.....	301-306
Systems, Pneumatic, Leader.....	308
Systems, Pneumatic, Milwaukee.....	309
Systems, Tankless, Westco.....	307
Well Casing	332, 333
Drive Shoes.....	320
Points.....	319
Wheels, Pipe Cutter	479
Valve, Kantsplit.....	384
Valve, Radiator.....	277
Whistles, Steam	410
Wick Packing, Asbestos	451
Packing, Candle.....	451
Windmill Heads	311
Wiping Cloths	486
Wires, Tank Bulb	115
Wool, Mineral	447
Wrenches, Cock, Steam	400
Monkey.....	473, 474
Nipple, Valve, Union.....	473, 480
Pipe.....	473-475
Wrought Pipe	326, 327
Y	
Y Bends, Brass, Iron Pipe Thread	351, 352
Branches, Cast Iron, Drainage	243-245
Branches, Cast Iron, Screwed, Extra Heavy	362
Branches, Cast Iron, Screwed, Standard	356
Branches, Cast Iron, Soil Pipe	230, 231
Branches, Malleable Iron	342

Val
to
Ybe

INDEX TO FIGURE NUMBERS

The illustrations in this catalogue are grouped by pages. All the illustrations on a given page are designated by the same number, being distinguished from each other by the addition of different letters.

To locate any figure, ignore the letter and find the figure number in the first column. The page number will be opposite.

Thus, to find Fig. 3005B, merely look up 3005, which will be seen on page 226.

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
1	326	1530	412	3104	118	5616	115	6973	77
3	319	1531	411	3108	140	5663	402	6991	448
21	360	1562	71	3128	50	5721	172	7000	203
23	370	1674	349	3191	451	5764	477	7003	105
30	368	1701	45	3204	238	5781	48	7016	269
31	369	1723	37	3346	404	5804	36	7041	444
45	335	1736	261	3482	85	5820	137	7066	295
85	312	1748	264	3509	156	5844	381	7104	471
86	313	1853	396	3525	332	5854	57	7156	186
187	372	1876	416	3555	397	5910	106	7188	301
251	470	1949	375	3676	280	5918	15	7191	302
287	308	1963	185	3706	364	5925	113	7195	303
301	184	1979	307	3776	166	5926	110	7196	304
401	131	2020	170	3817	224	5985	236	7201	305
576	478	2244	365	3962	282	5988	175	7202	306
585	417	2469	386	3998	357	6027	237	7223	93
588	100	2495	377	4280	84	6224	39	7260	314
595	283	2533	318	4331	455	6294	388	7262	311
601	451	2573	393	4404	199	6308	472	7340	136
611	389	2634	449	4415	474	6312	62	7499	114
661	89	2660	18	4457	17	6408	287	7500	14
702	40	2687	151	4462	421	6433	325	7544	165
721	379	2737	83	4623	215	6464	294	7545	485
733	351	2759	487	4626	469	6512	53	7557	284
785	399	2787	163	4785	391	6718	439	7582	167
806	479	2918	251	4842	413	6805	461	7654	168
889	41	3005	226	4961	420	6831	371	7675	171
952	268	3006	227	5119	24	6838	298	7689	488
963	452	3007	228	5130	177	6841	344	8051	343
1032	431	3008	229	5139	150	6896	405	8058	408
1063	467	3009	230	5210	348	6898	486	8061	341
1078	79	3010	231	5350	180	6899	259	8091	340
1088	81	3011	232	5360	119	6901	260	8327	468
1173	101	3012	233	5361	120	6904	274	8368	54
1184	415	3015	235	5368	30	6905	286	8407	58
1309	221	3016	234	5372	32	6907	473	8410	60
1312	394	3036	16	5376	33	6917	277	8508	390
1325	174	3039	55	5388	178	6929	20	8557	153
1445	484	3065	222	5399	209	6934	255	8696	342
1473	195	3072	67			6939	257		
1510	43	3075	78						

THE HUNTING CO.

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
8703	149	13205	275	19350	398	31559	272	36741	434
8704	164	13518	154	19366	322	31567	252	37034	191
8719	169	13853	95	19388	239	31569	254	37092	419
8723	358	13863	345	19620	47	31582	265	37177	26
8747	392	13928	427	19784	430	31838	297	37206	68
8772	111	13944	347	19823	148	31901	440	37243	193
8779	355	13944	347	19824	146	31943	323	37362	76
8805	356	14097	139	19824	146	32187	217	37451	436
8807	354	14179	285	21288	250	32251	205	37455	176
8848	362	14221	29	21333	481	32544	127	37459	6
8934	380	14276	462	21844	204	33139	94	37654	475
8949	423	14411	281	21986	317	33253	248	37849	188
8963	427	14415	276	22086	493	33386	31	38247	75
8969	403	14514	374	22100	13	33382	35	38326	25
9037	143	14522	401	22184	74	33394	42	38330	104
9126	144	14525	179	22463	214	33541	117	38734	189
9128	145	14549	482	22558	66	33558	99	38818	200
9132	378	14594	98	22857	457	33613	121	38829	27
9138	147	14596	96	22910	384	33650	249	39020	196
9261	279	14619	97	23089	400	33699	223	39076	116
9387	321	14675	220	23100	465	33812	441	39257	91
9427	162	14682	56	23106	463	34119	310	39650	443
9589	309	14830	216	23107	464	34136	198	39766	406
9593	418	15258	21	23977	409	34188	8	39812	130
9772	376	15591	426	24595	435	34192	1	39857	123
9885	324	15643	489	25397	432	34214	28	399407	210
9943	447	15911	446	26157	442	34449	240	39950	443
10019	109	15996	157	26528	315	34524	291	41167	244
10084	337	16091	271	28952	407	34525	290	41168	241
10137	61	16452	23	29118	456	34619	51	41169	243
10140	206	16464	159	29247	437	34632	213	41170	242
10395	410	16815	65	29299	373	34681	361	41171	245
10400	202	17029	132	29559	161	34714	218	41390	270
10603	395	17055	211	29568	350	34725	292	41526	124
10668	108	17358	103	29590	334	34726	293	41527	125
10681	160	17370	458	29673	212	34743	289	41549	359
10740	480	17377	459	29678	155	34748	52	41555	73
10900	208	17637	190	29698	69	34812	207	41556	63
11074	141	17888	483	29699	247	34840	346	41562	12
11194	466	17917	491	29700	246	34973	44	41565	158
11239	197	17956	445	29758	316	35059	192	41588	187
11325	173	18066	112	29774	219	35085	133	41611	102
11339	450	18069	19	29779	253	35089	387	41617	135
11342	11	18125	182	29903	422	35208	428	41818	424
11586	10	18186	70	30016	201	35296	129	41820	425
11588	9	18226	7	30076	414	35358	433	42017	134
11696	34	18241	46	30096	183	35360	90	42049	299
12359	383	18400	438	30097	320	35362	82	42052	300
12443	382	18649	490	30370	72	35494	194	42081	122
12483	5	18687	385	30600	88	35546	142	42129	80
12763	64	18706	492	30940	87	35806	4		
12771	38	19141	353	30952	86	36224	22		
12777	181	19146	460	31197	476	36359	128		
12855	152	19274	331	31338	278				

MODEL BATH ROOMS

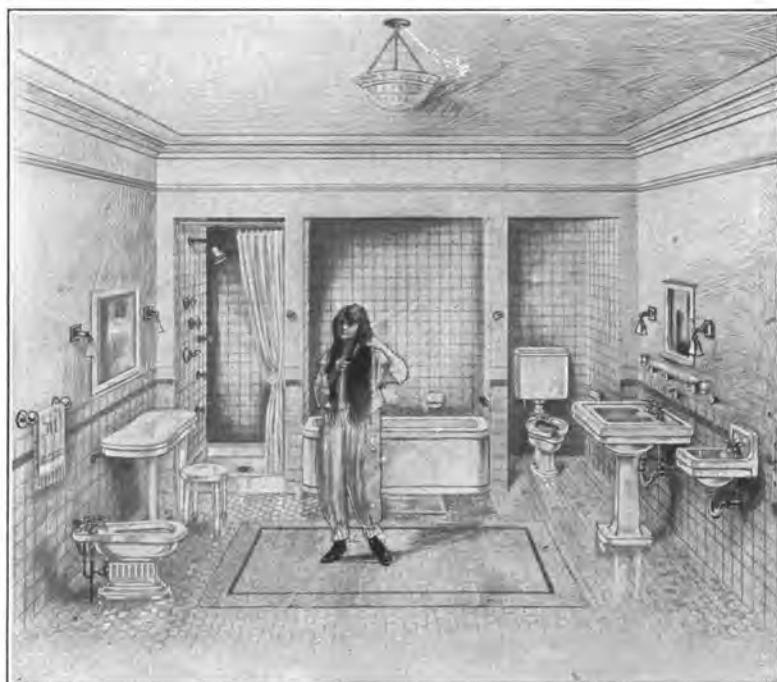


Fig. 34192A

This bath room is fully equipped in every detail and the numerous fixtures necessarily require a room of large dimensions. The fixtures are elaborate and harmonious in design and are the highest grade of products of the potter's skill. Such an equipped bath room will add a charm to any mansion.

BATH.—5-foot Solid Porcelain Recess Bath with Supply and Waste Fittings. . .

SHOWER.—Vitreous China Shower Head, Concealed Mixing and Control Valves, Sprays and Porcelain Receptor, White Duck Curtain and Nickel-plated Rod.

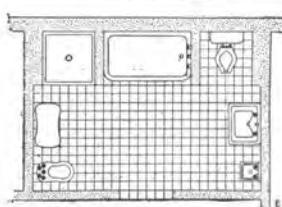
PEDESTAL LAVATORY.—Vitreous China Pedestal Lavatory, 24x32 Inches with Combination Supply and Waste Fittings, Trap and Supply Pipes.

DENTAL LAVATORY.—Vitreous China Dental Lavatory 14x13 Inches with China Handles.

DRESSING TABLE.—Vitreous China Dressing Table with Vitreous China Legs and Nickel-plated Brackets.

CLOSET.—Non-soiling Silent Action Syphon Jet Closet with White Saddle Seat and Vitreous China Tank.

BIDET.—Vitreous China Bidet with Jet and Supply and Waste Fittings.



MODEL BATH ROOM



Fig. 41109A

This room is designed for a house in which bath room space is limited and yet retains a pleasing effect without apparent overcrowding.

The Closet which encloses the concealed piping may serve as a linen closet or medicine chest. The long beveled plate glass mirror in the door adds greatly to the appearance of the room.

The Bath Tub is made in one piece, enameled white and constructed so as to tile into a recess as illustrated.

The inviting Shower Bath, with adjustable head, is built in the wall and may be operated independently without filling the tub.

The Lavatory, of high grade Vitreous China, is the best quality and possesses charm and character. The leg support harmonizes with this type of room. The floor is kept clear of piping; the supply pipes and trap go to the wall.

The Vitreous Syphon Jet Closet gives a rapid thorough flush, and embodies many new features.

MODEL BATH ROOM



A bath room installation for a private residence. The fixtures illustrated here are of the latest designs. The beauty of these fixtures is their simplicity of design.

In this equipment there is nothing that is not needed to give a comfort and a pleasure to the bath.

BATH.—Enameled Iron Roll Rim Bath on Base with Nickel-plated Double Compression Bath Cock, Supply Pipes and Connected Waste and Overflow.

Price, 5-foot.....
" 5½ "

SHOWER.—Portable Shower with White Duck Curtain, Curtain Ring and Hook and Rubber Tubing with Faucet Connection.

Price.....

LAVATORY.—Enameled Iron Pedestal Lavatory with Nickel-plated Compression Faucets with China Handle, Supply Pipe to Wall with Wheel Handle Stops and Nickel-plated P Trap.

Price, 22x24-inch.....
" 22x27 "

" 22x30 "

CLOSET.—Vitreous China Syphon Jet Bowl, Vitreous China Tank, Birch Mahogany Seat and Cover, Nickel-plated Hinges, Supply Pipe, Floor Screws and Washers.

Price.....

SOLID PORCELAIN BATHS TO TILE INTO CORNER



Fig. 35806A

Solid Porcelain Bath to Tile into Right-hand Corner, with Right-hand Bottom Waste Outlet, all Exposed Surfaces Glazed, fitted with Concealed Top Nozzle Supply and Waste Fitting, with $\frac{1}{2}$ -inch Compression Valves and $2\frac{1}{4}$ -inch Standing Waste with $1\frac{1}{2}$ -inch O. D. Tail Piece, Four-arm Solid China Handles and China Escutcheons.

Width Outside, 29 inches Height to Top of Rim, 19 inches
Depth Inside, 17 inches

Length.....	feet	5	$5\frac{1}{2}$	6
Price, as described.....				

" Tub Only, Less Fittings.....

Prices on porcelain baths are for kiln-run ware. An extra charge is made for special selection.



Fig. 35806B

For Right-hand Corner

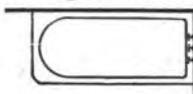


Fig. 35806C

For Left-hand Corner

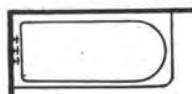


Fig. 35806D

This tub can be furnished for either right or left-hand corner. In ordering, specify which is wanted.

May also be fitted with Over-rim Nozzle, $\frac{1}{2}$ -inch Concealed Compression Valves with Solid China Four-Arm Handles and China Escutcheons, $2\frac{1}{4}$ -inch Nickel-plated Standing Waste with China Knob, Nickel-plated Escutcheon and Wall Stay.

SOLID PORCELAIN BATHS

TO TILE INTO RECESS



Fig. 12483A

Solid Porcelain Bath to tile into Recess with Left-hand Bottom Waste Outlet, all Exposed Surfaces Glazed, fitted with Concealed Top Nozzle Supply and Waste Fitting with $\frac{1}{2}$ -inch Compression Valves and $2\frac{1}{4}$ -inch Standing Waste with $1\frac{1}{2}$ -inch O.D. Tail Piece, Four-arm Solid China Handles and China Escutcheons.



Fig. 12483B

DIMENSIONS

Width Outside, 29 Inches	feet	5	$5\frac{1}{2}$	6
Height to Top of Rim, 19 Inches				
Depth Inside, 17 Inches				
Length.....	feet	5	$5\frac{1}{2}$	6

Price, as described

" Tub Only, Less Fittings

The tub may also be furnished with supply and waste at right-hand end.

Prices on porcelain tubs are for kiln-run ware. An extra charge is made for special selection.

This bath can also be furnished with supply nozzle through back instead of end, as shown in illustration at left.

COMBINATION BATH SEMI-VITREOUS PORCELAIN

COMBINED SEAT, FOOT AND CHILD'S BATH AND SHOWER



Fig. 37459A

drain on the seat shelf allows the soapy water to run off quickly thus preventing slipping when a bath mat is not used.

It is of particular advantage to the ladies as they are enabled to take a bath in a comfortable sitting position. The limbs are not unnaturally stretched or cramped as is the case in the flat bottom common bath tub.

A child's bath has heretofore been an expensive luxury found only in the mansions of the rich. One is now presented in combination with those already mentioned, which is absolutely safe and most convenient and comfortable.

This bath is also much more adapted for the sick or invalid than the ordinary bath, affording a position without physical effort.

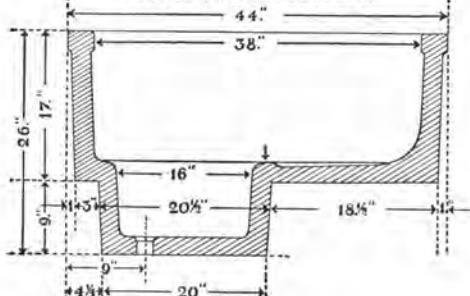
In planning of large apartments, hotels, residences, bungalows or any living quarters the adoption of this fixture has also many other advantages and is an ideal combination for every method of bathing.

Constructed of semi-vitreous porcelain that is guaranteed not to craze or stain and glazed on all exposed surfaces. It can be installed in any position in recess, corner or in center of floor and may be fitted with any kind of trimmings.

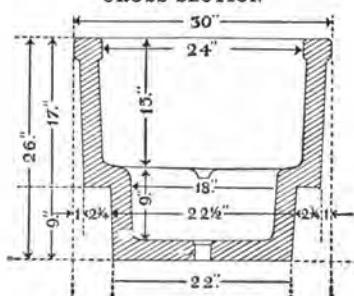
Weight, about 690 pounds crated.

Price, without Trimmings.....each

LONGITUDINAL SECTION



CROSS SECTION



ENAMELED IRON BATHS

PEMBROKE

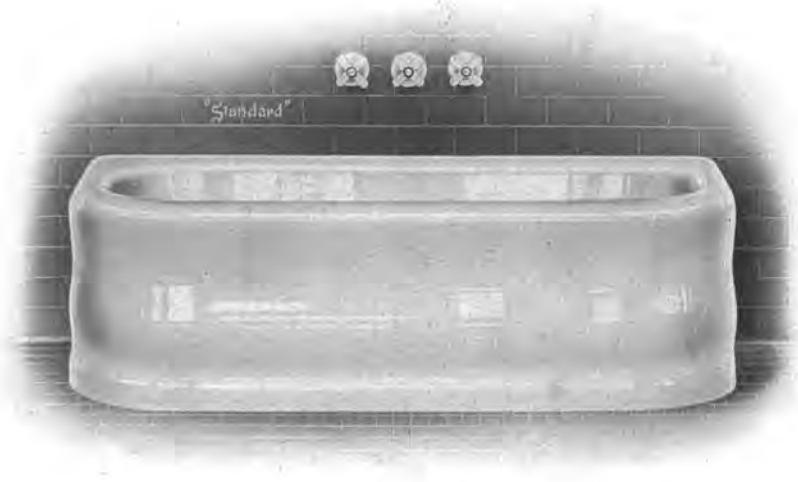


Fig. 18226A

Enameled All Over One-piece Bath to tile into Back Wall, 3 $\frac{3}{4}$ -inch Rim and Right-hand End Outlet, Nickel-plated Top Nozzle Supply and Waste Fitting with Concealed Compression Valves with Solid China Cross Handles and China Escutcheons.

DIMENSIONS

Width Over All, 30 inches.

Depth Inside, 17 inches.

Width of Rim, 3 $\frac{3}{4}$ inches.

Height, Floor to Top of Rim, 17 $\frac{1}{2}$ inches.

Width from Finished Wall Line, 29 $\frac{1}{4}$ inches. Height, Bottom to Top of Rim, 18 inches.

Nonimal Sizes	feet	5	5 $\frac{1}{2}$	6
Length Over All.....	inches	61 $\frac{1}{2}$	67 $\frac{1}{2}$	73 $\frac{1}{2}$
Price, as described.....	.....	.....	.....	.....
" Tub Only .....	.....	.....	.....	.....

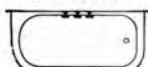
Right Hand
Waste Outlet

Fig. 18226B

When ordering specify whether right hand or left hand end outlet is desired.

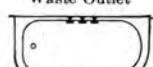
Left Hand
Waste Outlet

Fig. 18226C

ENAMELED IRON BATHS

PEMBROKE

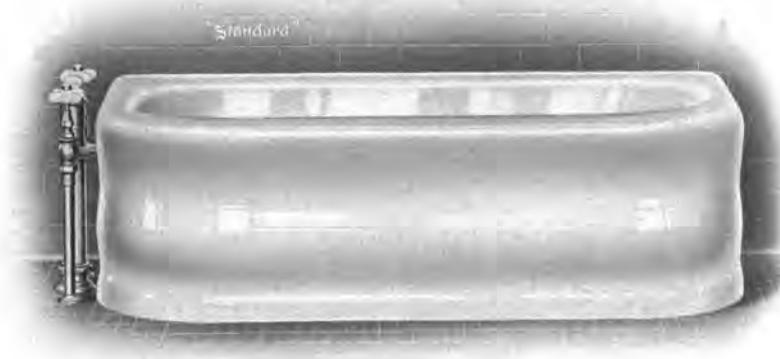


Fig. 34188A

Enamelled All Over One-piece Bath to tile in at Back Wall with $3\frac{3}{4}$ -inch Rim and with Left-hand End Outlet, Nickel-plated Exposed Top Nozzle Supply and Waste Fitting with $\frac{3}{4}$ -inch Compression Valves, Solid China Cross Handles Indexed and China Knob on Waste and $\frac{3}{4}$ -inch Supply Pipes.

DIMENSIONS

Width Over All, 30 inches.

Depth Inside, 17 inches.

Width of Rim, $3\frac{3}{4}$ inches.

Height, Floor to Top of Rim, $17\frac{1}{2}$ inches.

Width from Finished Wall Line, $29\frac{1}{4}$ in. Height, Bottom to Top of Rim, 18 inches.

Nominal Sizes	feet	5	$5\frac{1}{2}$	6
Length Over All.....	inches	$61\frac{1}{2}$	$67\frac{1}{2}$	$73\frac{1}{2}$
Price, as described.....		.....	.....	.....
" Tub only.....		.....	.....	.....



Fig. 34188B

This bath may be furnished with fittings at either right or left hand end. Specify in ordering which Style is wanted.



Fig. 34188C

ENAMELED IRON BATHS

PEMBROKE

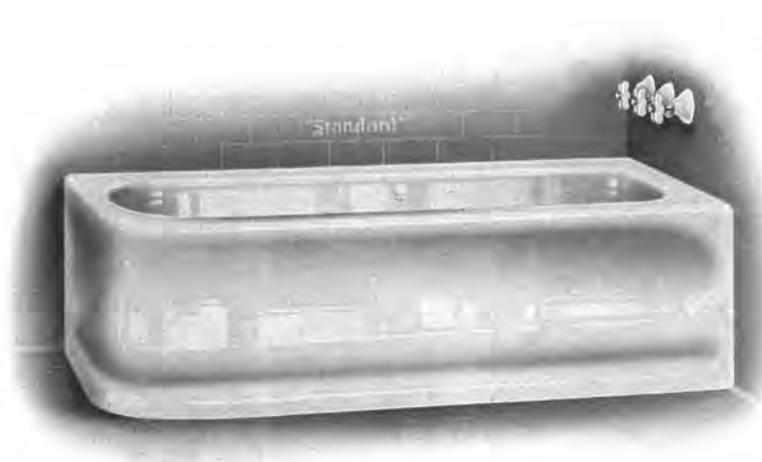


Fig. 11588A

Enameled All Over One-piece Bath to tile in Right-hand Corner, with $3\frac{3}{4}$ -inch Rim and Right-hand End Outlet, Nickel-plated Top Nozzle Supply and Waste Fitting with Concealed $\frac{1}{2}$ -inch Compression Valves with Solid China Cross Handles with Indexes and China Escutcheons.

DIMENSIONS

Width Over All, 30 inches.

Width of Rim, $3\frac{3}{4}$ inches.

Height, Bottom of Bath to Top of Rim, 18 inches.

Width from Finished Wall Line, $29\frac{1}{4}$ inches.

Height, Floor to Top of Rim, $17\frac{1}{2}$ inches.

Depth Inside, 17 inches.

Nominal Sizes	feet	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Length Over All	inches	54	60	66	72
" from Finished Wall Line	"	$53\frac{1}{4}$	$59\frac{1}{4}$	$65\frac{1}{4}$	$71\frac{1}{4}$
Price, as described	.....	.....	.....	.....	.....
" Tub only	.....	.....	.....	.....	.....

For Right-Hand Corner Fittings in End Wall

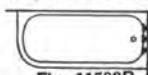


Fig. 11588B

For Left-Hand Corner Fittings in End Wall

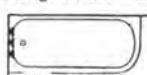


Fig. 11588C

For Right-Hand Corner Fittings in Back Wall

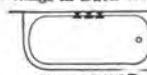


Fig. 11588D

For Left-Hand Corner Fittings in Back Wall

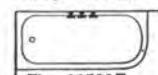


Fig. 11588E

This tub can be furnished for either right or left hand corner and with fittings at end wall or at back wall. In ordering, specify right or left-hand corner and position of fittings.

ENAMELED IRON BATHS

PEMBROKE



Fig. 11586A

Enameled All Over One-piece Bath to Tile in Right-hand Corner, with 3 3/4-inch Rim and Left-hand End Outlet, Nickel-plated Top Nozzle Supply and Waste Fitting with Compression Valves, Solid China Cross Handles, Indexed, and China Knob and 1/2-inch Supply Pipes.

DIMENSIONS

Width Over All, 30 inches.

Width of Rim, 3 3/4 inches.

Height, Bottom of Bath to Top of Rim, 18 inches.

Width from Finished Wall Line, 29 1/4 inches.

Height, Floor to Top of Rim, 17 1/2 inches.

Depth Inside, 17 inches.

Nominal Sizes.....	feet	4 1/2	5	5 1/2	6
Length Over All.....	inches	54	60	66	72
" from Finished Wall Line.....	"	53 1/4	59 1/4	65 1/4	71 1/4
Price, as described.....		.....	.....	.....	.....
" Tub only.....		.....	.....	.....	.....

For Right-hand Corner



This tub can be furnished for right-hand or left-hand corner. In ordering state which is wanted.

Fig. 11586B

For Left-hand Corner



Fig. 11586C

ENAMELED IRON BATHS

PEMBROKE

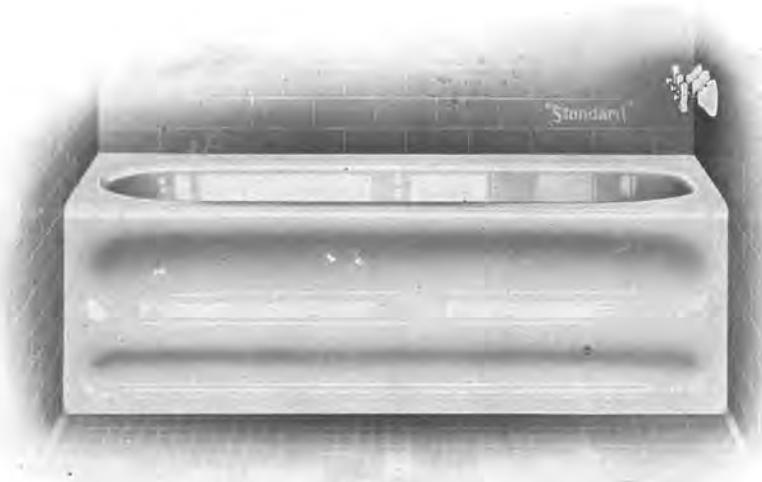


Fig. 11342A

Enameled All Over One-piece Recess Bath with $3\frac{3}{4}$ inch Rim and Right-hand End Outlet, Nickel-plated Combination Top Nozzle Supply and Waste Fitting with Concealed $\frac{1}{2}$ -inch Compression Valves and Solid China Cross Handles with Indexes and China Escutcheons.

DIMENSIONS

Width Over All, 30 inches.

Depth Inside, 17 inches.

Width of Rim, $3\frac{3}{4}$ inches.

Height, Floor to Top of Rim, $17\frac{1}{2}$ inches.

Width from Finished Wall Line, $29\frac{1}{4}$ in.

Height, Bottom of Bath to Top of Rim, 18 in.

Nominal Sizes.....	feet	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Length Over All.....	inches	$52\frac{3}{4}$	$58\frac{3}{4}$	$64\frac{3}{4}$	$70\frac{3}{4}$
" between Finished Wall Lines ..	"	$51\frac{1}{4}$	$57\frac{1}{4}$	$63\frac{1}{4}$	$69\frac{1}{4}$
Price, as described.....		.....	.....	.....	.....
" Tub only.....		.....	.....	.....	.....

Fittings and Waste
Right-hand End

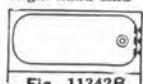


Fig. 11342B

Fittings and Waste
Left-hand End

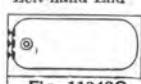


Fig. 11342C

Fittings at Back Wall
Right-hand Waste

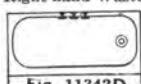


Fig. 11342D

Fittings at Back Wall
Left-hand Waste

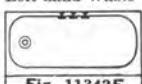


Fig. 11342E

These baths may be furnished with fittings located as above, at right or left-hand end or at back wall with waste at right or left-hand. Specify which is wanted in ordering.

ENAMELED IRON BATHS

CONRED



Fig. 41562A

Enameled Iron One Piece Bath to tile in Left Hand Corner, with Left Hand End Outlet and 3-inch Roll Rim, Over Rim Supply and Ideal Waste with $\frac{1}{2}$ -inch Concealed Compression Valves with Indexed China Cross Handles and China Escutcheons.

DIMENSIONS

Width Over Rim 29 inches. Height, Floor to Top of Rim, $17\frac{1}{2}$ inches.

Width from Finished Wall Line $28\frac{1}{2}$ inches. Depth Inside 17 inches.

inches.

Height, Bottom of Bath to Top of Rim, 18 inches.

Nominal Sizes.....	feet	$4\frac{1}{2}$	5	$5\frac{1}{2}$
Length Over All.....	inches	$54\frac{1}{2}$	$60\frac{1}{2}$	$66\frac{1}{2}$
" from Finished Wall Line.....	"	54	60	66
Price, as described, Enameled Inside.....		....	....	....
" Tub Only, Enameled Inside.....		....	....	....
If Enameled All Over, add.....		....	....	....
Connected Waste and Over-flow furnished if Desired.				
For Left Hand Corner				

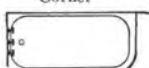


Fig. 41562B

This tub can be furnished to tile in either right hand or left hand corner. In ordering be sure to specify which is wanted.

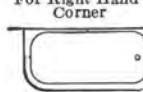


Fig. 41562C

ENAMELED IRON BATHS

CONRED



Fig. 22100A

Enameled Iron One-piece Low Pattern Bath, to tile into Left-hand Corner with 3-inch Roll Rim and Right Hand End Outlet, Nickel-plated Compression Double Bath Cock with China Indexed Handles, $\frac{1}{2}$ -inch Nickel-plated Supply Pipes, Connected Waste and Overflow with Chain and Rubber Stopper.

DIMENSIONS

Width Over Rim, 29 inches. Height, Floor to top of Rim, $17\frac{1}{2}$ inches.

Width from Finished Wall Line, $28\frac{1}{2}$ inches. Depth Inside, 17 inches.

Width of Roll Rim, 3 inches.

To tile in Wall, $\frac{1}{2}$ inch.

Height, Bottom of Bath to Top of Rim, 18 inches.

Nominal Sizes.....	feet	$4\frac{1}{2}$	5	$5\frac{1}{2}$
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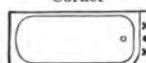
Length from Finished Wall Line.....	inches	54	60	66
-------------------------------------	--------	----	----	----

Price, as described, Enameled Inside.....
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" Tub only, Enameled Inside
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If Enameled All Over, add.....
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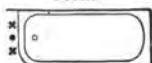
For Left-hand
Corner



This tub can be furnished to tile in either right-hand or left-hand corner.

Fig. 22100B

For Right-hand
Corner



Specify for which corner tub is wanted when ordering.

Fig. 22100C

ENAMELED IRON BATHS

RECONA

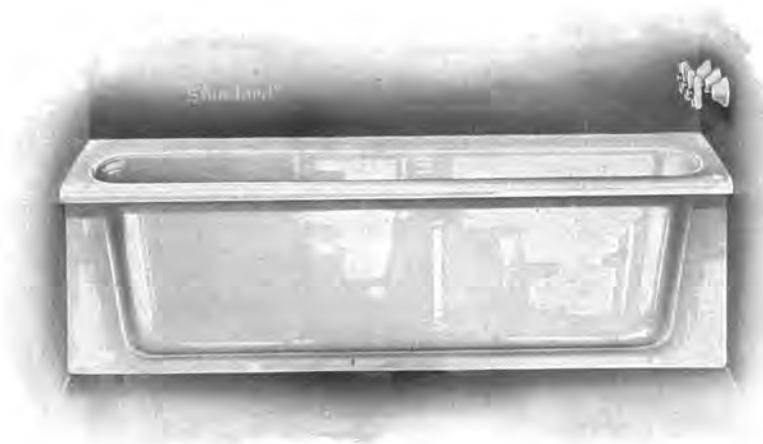


Fig. 7500A

Enameled Iron One-piece Low Pattern Recess Bath with 3-inch Roll Rim, and Right-hand End Outlet, Combination Nickel-plated Top Nozzle Supply and Waste Fitting at Right-hand End with $\frac{1}{2}$ -inch Concealed Compression Valves, Indexed China Cross Handles and China Escutcheons.

DIMENSIONS

Width over Rim, 29 inches.	Height from Floor to Top of Rim, 17 $\frac{1}{2}$ inches.
Width from Finished Wall Line, 28 $\frac{1}{2}$ inches.	Depth Inside, 17 inches.
Width of Roll Rim, 3 inches.	To Tile in Wall, $\frac{1}{2}$ -inch. Height, Bottom of Bath to Top of Rim, 18 inches.

Nominal Sizes	feet	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$
Length between Finished Wall Lines	inches	52 $\frac{1}{2}$	58 $\frac{1}{2}$	64 $\frac{1}{2}$
Price, as described, Enameled Inside . . . . .		.....	.....	.....
" Tub only " "		.....	.....	.....
If Enameled All Over, Add . . . . .		.....	.....	.....

Right-hand Waste
and Fittings

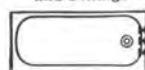


Fig. 7500B

This tub can be furnished with supply and waste at right or left-hand end. In ordering specify which is wanted.

Left-hand Waste
and Fittings



Fig. 7500C

ENAMELED IRON BATHS

ESSEX ON BASE

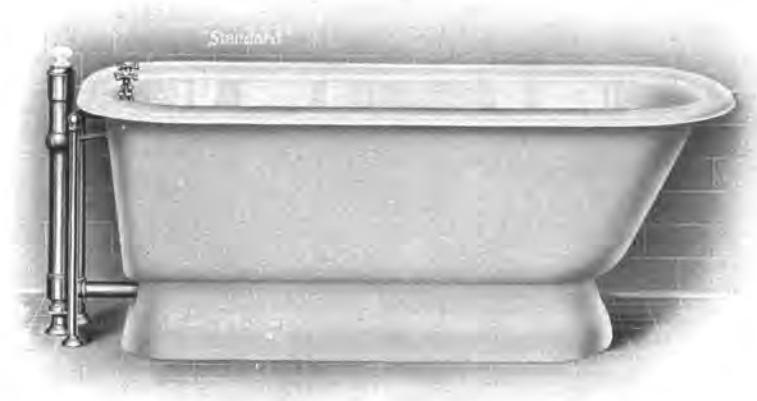


Fig. 5918A

Enameled Iron Bath on Base, with 3-inch Roll Rim, Painted One Coat Exterior, Nickel-plated Compression Double Bath Cock with Four-ball China Index Handles, $\frac{1}{2}$ -inch Nickel-plated Supply Pipes, and Nickel-plated Standing Waste with China Knob.

DIMENSIONS

Width over Rim, 30 inches.

Depth Inside, 17 inches.

Width of Roll Rim, 3 inches.

Height to Top of Rim, $22\frac{1}{2}$ inches.

Nominal Sizes	feet	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Length over Rim.....	inches	$48\frac{1}{4}$	$54\frac{1}{4}$	$60\frac{1}{4}$	$66\frac{1}{4}$	$72\frac{1}{4}$
Price, as Described.....		....	....	....	....	....
" Tub only.....		....	....	....	....	....

If with Connected Waste and Overflow and Compression Double Bath
Cock, deduct.....

If with Albadent White Exterior Finish, add.....

" " No. 1 Zinc " " " "

ENAMELED IRON BATHS

ESSEX



Fig. 3036A

Enameled Iron Flat Bottom Bath with 3-inch Roll Rim and Claw Feet, Painted One Coat Exterior without Supply or Waste Fitting, Drilled 1 $\frac{1}{4}$ -inch Cock Holes 3 $\frac{3}{8}$ inches Center to Center and 2 $\frac{1}{2}$ -inch Overflow Hole.

DIMENSIONS

Width over Rim, 30 inches. Depth Inside, 17 inches. Height to Top of Rim, 22 $\frac{1}{2}$ inches.

Nominal Size.....	feet	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6
Length over Rim	inches	48 $\frac{1}{4}$	54 $\frac{1}{4}$	60 $\frac{1}{4}$	66 $\frac{1}{4}$	72 $\frac{1}{4}$
Price, Tub only.....		.....	.....	.....	.....	.....

If with Fixtures, as shown at left, add to price of Tub only.....	.....
If with No. 1 Zinc White Exterior Finish, add.....	.....
If with No. 2 Zinc White Exterior Finish, add.....	.....



Showing bath fitted with Compression Bath Cock, nickel-plated handles and nickel-plated supply pipes, connected waste and overflow, with chain and rubber stopper.

ENAMELED IRON BATHS

KNICKERBOCKER



Fig. 4457A

Enameled Iron Bath with $2\frac{1}{4}$ -inch Roll Rim and Claw Feet, Exterior Painted One Coat, Nickel-plated Double Bath Cock with Nickel-plated Handles, $\frac{1}{2}$ -inch Offset Supply Pipes, Nickel-plated Connected Waste and Overflow, Chain and Rubber Stopper.

DIMENSIONS

Width over Rim, 26 inches.

Depth Inside, 17 inches.

Width of Roll Rim, $2\frac{1}{4}$ inches.

Height to Top of Rim, $22\frac{1}{2}$ inches.

Nominal Sizes.....	feet	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$
Length over Rim.....	inches	48	54	60	66
Price, as described .....		.....	.....	.....	.....
" Tub only.....		.....	.....	.....	.....
If with No. 1 Zinc White Exterior Finish, add .....		.....	.....	.....	.....
" " " 2 " " " "		.....	.....	.....	.....
" " Albadent Exterior Finish, add .....		.....	.....	.....	.....

CONTINUOUS FLOW BATHS



Fig. 2660A

Enamelled Iron Bath 3-inch Roll Rim with Zinc White Exterior Finish, 3-inch Combination Model Waste and Overflow, B-10 Nickel-plated Brass Leonard Thermostatic Mixing Valve with Stop Valves and Elbow Supply to Wall, Nickel-plated Supply Pipe to Tub, Canvas Cradle with Nickel-plated Brass Frame.

Price, as described.....

This tub furnished in lengths, 6 foot 2 inches and 6 foot 6 inches. State which is desired in ordering. It can also be furnished in solid porcelain 6 foot, 6½ foot and 7 foot lengths.

The Leonard Valve maintains the temperature desired regardless of the variation in pressure or temperature of water supplied to it and will shut off automatically if these variations are too great, thereby removing entirely the possibility of scalding or chilling.

Rubber covering sheet with puckering cord furnished for the above tub when desired.

SOLID PORCELAIN SITZ AND FOOT BATHS

SITZ BATHS

On Base



Fig. 18069A

On Base to Tile in Wall



Fig. 18069B

ON BASE

All Roll Rim Solid Porcelain Sitz Bath with Bottom Outlet, fitted with Nickel-plated Brass Top Bell Supply and 2½-inch Standing Waste Fitting with China Knob and 1½-inch O. D. Tail Piece, Compression Valves with Four-arm Solid China Handles and Nickel-plated Brass ½-inch Iron Pipe Supply Pipes.

Length Outside 30 inches
Width Outside 26½ inches

Height at Back 21 inches
Height at Front 14½ inches

Price, as described.....

ON BASE TO TILE IN WALL

Built-in Solid Porcelain Sitz Bath, with Bottom Outlet fitted with Nickel-plated Brass Top Bell Supply and 2½-inch Standing Waste with China Knob and 1½-inch O. D. Tail Piece, Compression Valves with Four-arm Solid China Handles and Nickel-plated Brass ½-inch Iron Pipe Supply Pipes.

Length Outside 30 inches
Width Outside 26 inches

Height at Back 21 inches
Height at Front 14½ inches

Price, as described.....

FOOT BATHS

Solid Porcelain All Roll Rim Foot Bath with Bottom Outlet, fitted with Nickel-plated Brass Top Bell Supply and 2½-inch Standing Waste Fitting with China Knob and 1½-inch O. D. Tail Piece, Compression Valves with Four-arm Solid China Handles and Nickel-plated Brass ½-inch Iron Pipe Supply Pipes.

Length Outside 26 inches
Width Outside 21 inches
Height at top of Rim 14 inches

Price, as described.....

Prices on porcelain sitz and foot baths are quoted for kiln-run ware. Extra charge is made for special selection.



Fig. 18069C

ENAMELED IRON FOOT BATHS



Fig. 6929A

Enameled All Over One-piece Foot Bath with 3-inch Rim to Tile in Back Wall, Fitted with Nickel-plated Top Bell Supply and Standing Waste Fitting, $\frac{1}{2}$ -inch Compression Re-Nu Valves with Four-arm China Handles, Indexed, China Knob on Waste, and $\frac{1}{2}$ -inch Iron Pipe Size Nickel-plated Supply Pipes.

Width Over Rim 26 inches.
Front to Back Wall 24 $\frac{3}{4}$ inches; Over All 25 $\frac{1}{2}$ inches.
Height from Floor to Top of Rim 14 $\frac{1}{2}$ inches.
Depth at Outlet 14 inches.

Price, as described

Enameled All Over One-piece Foot Bath with 3-inch Rim to Tile in Back Wall, Fitted with Concealed Top Bell Supply and Standing Waste Fitting, with $\frac{1}{2}$ -inch Compression Re-Nu Valves and Four-arm China Indexed Handles.

Width over Rim 26 inches.
Front to Back Wall 24 $\frac{3}{4}$ inches; Over All 25 $\frac{1}{2}$ inches.
Height from Floor to Top of Rim 14 $\frac{1}{2}$ inches.
Depth at Outlet 14 inches.

Price, as described



Fig. 6929B

BABY BATHS AND BIDETS



Fig. 15258A

PORCELAIN BABY BATH ON PEDESTAL

Porcelain Baby Bath on Porcelain Pedestal, Glazed Inside and Outside, Nickel-plated Compression Top Supply and Waste Fitting with China Indexes and China Knob, $\frac{1}{2}$ -inch Nickel-plated Supply Pipes and Trap.

Length 36 inches Height 31 inches
Width 24 inches Depth 13 inches

Price, as described
" without Fittings

Prices on Porcelain Baths are for kiln run ware. An extra charge will be made for special selection.

BIDETS

Vitreous China Flushing Rim Pedestal Bidet with Douche, Fixture Shelf and Integral Supply Nozzle, fitted with Nickel-plated $1\frac{1}{4}$ -inch Pop-up Waste with China Knob, $1\frac{1}{4}$ -inch O. D. Tail Piece, Hot and Cold Water Compression Supply Valves with Four-arm Solid China Handles and Escutcheons, Transfer Valve with China Lever Handle and Escutcheon and Nickel-plated Supply Pipes to Floor.

Length Over All $25\frac{3}{4}$ inches
Height 15 inches
Width 15 inches
Opening of Bowl $15\frac{1}{2}$ inches

Price, as described

The transfer valve controls the supply of hot or cold water to the flushing rim or center douche.



Fig. 15258B

BATH FITTINGS

CONCEALED SUPPLY AND WASTES



Fig. 36224A

Concealed Top Nozzle Bath Supply and Standing Waste Fitting with Compression Valves and Solid China Cross Handles and Escutcheons for Built-in Tub.

Price, $\frac{1}{2}$ -inch Valves, 2-inch Waste **37.00**
" $\frac{3}{4}$ " " $2\frac{1}{4}$ " " **44.00**

Fitting arranged for Back Wall, add
3.00.



Fig. 36224C

Concealed Over Rim Nozzle Bath Supply and Connected Waste and Overflow Fitting, with Compression Valves and Solid China Cross Handles and Escutcheons for Built-in Tub.

Price, $\frac{1}{2}$ -inch Valves, $1\frac{3}{8}$ -inch Waste **24.00**

Price, $\frac{3}{4}$ -inch Valves, $1\frac{1}{2}$ -inch Waste **29.00**

EXPOSED SUPPLY AND WASTES

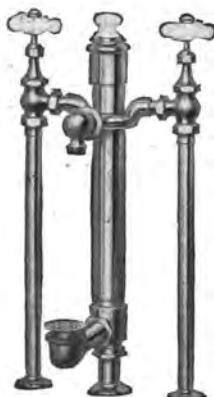


Fig. 36224B

Nickel-plated Top Nozzle Bath Supply and Standing Waste Fitting with Compression Valves and Supply Pipes to Floor, Solid China Cross Handles and China Knob on Waste. To be used outside rim of tub.

Price, $\frac{1}{2}$ -inch Valves, 2-inch Waste **38.00**
" $\frac{3}{4}$ " " $2\frac{1}{4}$ " " **45.00**



Fig. 36224D

Nickel-plated Top Nozzle Bath Supply and Standing Waste Fitting with Compression Valves and Supply Pipes to Floor, Solid China Cross Handles, and China Knob on Waste. To be used with Pembroke and Woodmere Baths.

Price, $\frac{3}{4}$ -inch Valves, $2\frac{1}{4}$ -inch Waste. **49.00**

BATH WASTES

Regular
For Tubs on Legs

Fig. 16452A

Standing Wastes

With Union
For Legless Tubs

Fig. 16452B

Regular Connected
Waste and Overflow

Fig. 16452C

STANDING WASTES

Price, Regular, with China Indexed Knob.....	each	14.00
" " " Full China Knob.....	"	15.00
" with Union 1½-inch for Legless Tubs.....	"	18.50
If with Waste Elbow, add.....		1.75

REGULAR CONNECTED WASTE AND OVERFLOWS

Price, 1¼-inch.....	each	5.00
" 1½ ".....	"	6.50

CONNECTED WASTE AND OVERFLOWS

With Trap

Adapto
Adjustable

Fig. 16452D



Fig. 16452E

With Union



Fig. 16452F



Fig. 16452G

Price, Adapto Adjustable, 1¾-inch, to Fit All Makes of Tubs.....	each	6.50
" with Globe Trap and Cleanout Plugs.....	"	9.00

WITH UNION

For low pattern tubs, requiring roughing-in below the floor line.		
Price, 1½-inch, Exposed, Nickel-plated.....	each	11.50
" 1½ " Concealed, Rough Brass.....	"	9.50
If with Waste Elbow, add.....		1.75

BATH FITTINGS



Fig. 5119A

RE-NU BATH FAUCETS

WITH TRANSFER VALVE FOR SHOWER

This faucet serves the purpose of bath cock and shower. A half turn of the transfer valve handle diverts the tempered water from the tub to the shower-head; also serves as a control valve regulating to any desired pressure the flow of water through the shower.

No. 1167 is fitted with 24-inch riser and 4-inch cast brass shower head with adjustable ball joint. No shower curtains required.

Price each **12.50**

No. 1168 has 4-inch cast brass shower head with adjustable ball joint, regulation height riser, square curtain support and duck curtain.

Price each **26.00**

No. 1166 has spray attachment and rubber hose only.
Price each **9.25**

TUB SHOWER BATH FAUCETS

It is a great convenience to the entire family—gives the choice of a tub or shower bath. Simply push or pull the little knob for water through spout or spray.

It provides an ideal means of shampooing without splashing up the bath room.

The Tub-Shower Bath Faucet combines a permanent shower attachment to a special pattern bath faucet.

A fitting that can be installed on any tub, old or new. Complete with five feet of hose.

Price, Nickel-plated each **21.50**



Fig. 5119B

QUICK COMPRESSION BATH COCKS

No. 18 WITH FRONT HANDLES



Fig. 38326A

No. 19 WITH TOP HANDLES



Fig. 38326B

Nickel-plated Quick Compression Bath Cock with China Front Handles Indexed.
Price..... 7.00

Nickel-plated Quick Compression Bath Cock with China Indexed Top Handles.
Price..... 7.50

WITH SIDE HANDLES

No. 22 PLAIN



Fig. 38326C

No. 21 WITH JEWEL CUP



Fig. 38326D

Nickel-plated Quick Compression Bath Cock with China Side Handles Indexed.
Price..... 9.50

Nickel-plated Quick Compression Bath Cock with Jewel Cup, China Side Handles, Indexed.
Price..... 9.50

All above Bath Cocks have adjustable flanges, raised seats and encased seat washers.

BATH COCKS

COMPRESSION

WITH FOUR BALL TOP HANDLES

No. 9



Fig. 37177A

COMPRESSION

WITH FOUR BALL FRONT HANDLES

No. 8



Fig. 37177B

Nickel-plated Compression Double Bath Cock, with Four-ball China Indexed Top Handles. Less Coupling Nuts and Tail Pieces

Price	6 80
" with China Four-arm Handles	7.80

Nickel-plated Compression Double Bath Cock with Four-ball China Indexed Front Handles. Less Coupling Nuts and Tail Pieces

Price	6.50
" with China Four-arm Handles	7.50

FULLER

WITH CHINA HANDLES



Fig. 37177C

Nickel-plated Fuller Double Bath Cock with Round Body and China Handles. Less Coupling Nuts and Tail Pieces.

Price	each .950
If with Jewel Cup, add .....	.50
" " Hose Connection, add .....	.50

LAVATORY AND BATH SUPPLY PIPES

LAVATORY SUPPLY PIPES

PLAIN TO FLOOR No. 1



Fig. 38829A

WITH STOP No. 2



Fig. 38829B

PLAIN No. 3



Fig. 38829C

TO WALL



Fig. 38829D

WITH STOP No. 4

Number	1	2	3	4
Price, Nickel-plated, $\frac{3}{8}$ in. Iron Pipe Size... per pair	4.00	8.00	7.00	10.40
" " " " "	5.00	9.40	8.60	12.00

BATH SUPPLY PIPES

PLAIN STRAIGHT



Fig. 38829E

45° OFFSET



Fig. 38829F

90° OFFSET



Fig. 38829G

UNIVERSAL BALL JOINT OFFSET



Fig. 38829H

Iron Pipe Size	inches	$\frac{3}{8}$	$\frac{1}{2}$
Price, Plain Straight, Nickel-plated	per pair	4.00	5.00
" 45° Offset, Nickel-plated,	"	5.60	6.00
" 90° "	"	5.60	6.00
" Universal Ball Joint Offset, $\frac{3}{8}$ O. D. 14 Gauge, Annealed	per pair		4.00

COMBINATION SHOWER AND BATH FITTINGS

SPEAKMAN'S

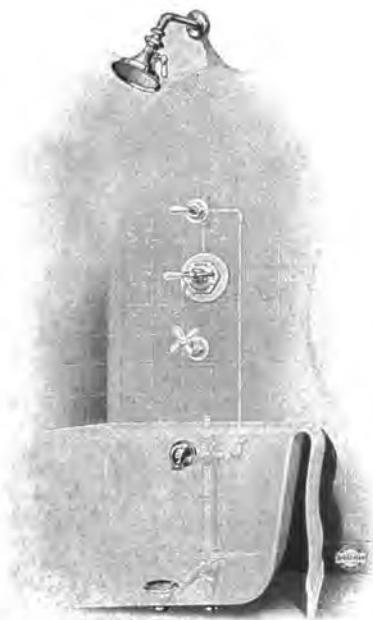


Fig. 34214A



Fig. 34214B

Combination Mixometer Shower and Bath Fitting with 4-inch Cast Brass Any-force Needle Head with Ball Joint and Supply Arm to Wall, Mixometer and Transfer Valve with China Wall Plates, Nozzle Supply to Tub, 2-inch Standing Bath Waste with China Cross Handle.

Price, as described

This fixture has a transfer valve which switches the water either to the shower head or to the nozzle. This construction eliminates the necessity of check valves and the Mixometer can therefore be built in the wall solid, but provision should be made to get at the standing waste from the rear.

Combination Mixometer Shower and Deshler Bath Fitting with 4-inch Cast Brass Anyforce Needle Head with Ball Joint and Supply Arm to Wall, $\frac{1}{2}$ -inch Built-in Compression Valves with China Cross Handles and China Escutcheons, Mixometer with China Wall Plate, Nozzle Supply to Tub, 2-inch Standing Waste.

Price, as described

The bath valves are by-pass pattern with renewable seat. The supplies to the shower are taken from the top of the bath valves. Thus one set of supplies feeds both the bath fixtures and the shower.

COMBINATION BATH AND SHOWER FITTINGS

SPEAKMAN'S



Fig. 14221A



Fig. 14221B

Combination Over Rim Tub Filler and Shower with Brass Needle Head and Bent Supply Arm, $\frac{1}{2}$ -inch Built-in Compression Valves with China Cross Handles and China Escutcheons and Nickel-plated Supply Spout Extending from Wall over Tub.

Price, as described

Waste not included in price.

Deshler Bath Fitting and Shower with Hi-Seat Compression Valves with China Escutcheons and Handles, Nozzle Supply to Tub, 2-inch Standing Waste, 4-inch Cast Brass Shower Head with Ball Joint and Bent Arm Discharge Pipe.

Price, as described

Add for $\frac{3}{4}$ -inch Valves and $2\frac{1}{4}$ -inch Waste

These fixtures simplify piping. One set of supply pipes feed the bath and shower. The bath valves are by-pass pattern. All valves are connected with brass pipe but may be furnished without.

SHOWER BATHS

SPEAKMAN'S

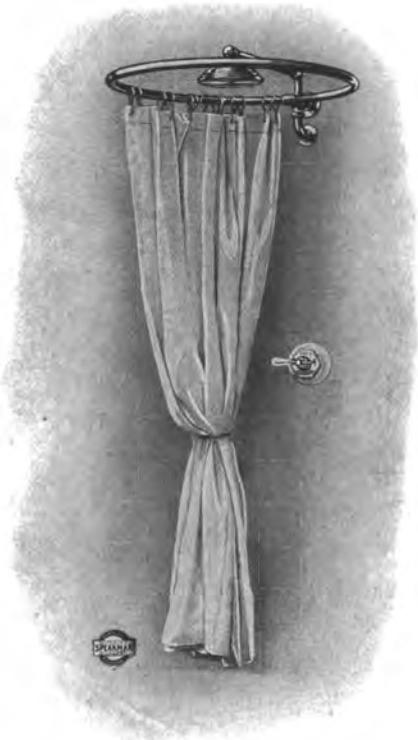


Fig. 5368A

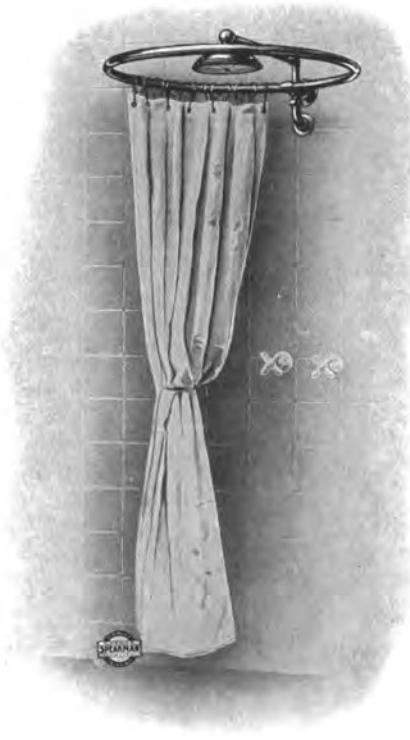


Fig. 5368B

Nickel-plated Brass Shower with $\frac{1}{2}$ -inch Built-in Mixometer with China Wall Plate and China Handle, Nickel-plated Shower Head with Nickel-plated Supply Arm to Wall, 24x30-inch Oval Curtain Ring, White Duck Curtain, Curtain Snaps and Hook.

Price, as described .....	.....
If with 24-inch Curtain Ring deduct .....	.....
If with Lock Shield Controlling Valves with China Escutcheons, add .....	.....

Nickel-plated Brass Shower with $\frac{1}{2}$ -inch Built-in Compression High Seat Valves with China Handles and China Escutcheons, Nickel-plated Needle Shower Head, with Supply Arm to Wall, 24-inch Curtain Ring, White Duck Curtain, Snaps and Curtain Hook.

Price, as described .....	.....
If with 24x30-inch Oval Curtain Ring, add .....	.....

SHOWER BATHS

SPEAKMAN'S



Fig. 33386A

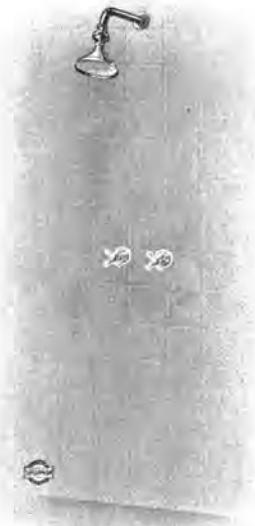


Fig. 33386B

Nickel-plated Built-in Speakman Mixometer Shower, $\frac{1}{2}$ -inch Size, with China Wall Plate, Nickel-plated Bent Arm Discharge Pipe with Ball Joint and Four-inch Cast Brass Anyforce Head.

Price as described

If with Concealed Regulating
Stops, add

These showers are designed to set in a stall or at end of a built-in tub.

By the patented Anyforce Shower Head the bather can regulate the pressure from as strong as the shower will give to as mild as wanted by simply turning the china lever handle.

Nickel-plated Built-in Shower, with $\frac{1}{2}$ -inch Speakman Built-in High Seat Compression Valves with China Escutcheons and China Cross Handles, Nickel-plated Bent Arm Discharge Pipe with Ball Joint and 4-inch Cast Brass Head.

Price as described

If with Shampoo Valves and
Spray, add

These showers are designed to set in a stall or at end of a built-in tub.

The valves in these showers have the seat set high up in the body of the valve, making it easy of access for repairs and the spindle being short, it guides and seats easily.

SHOWER BATHS

WITH SPEAKMAN MIXOMETER

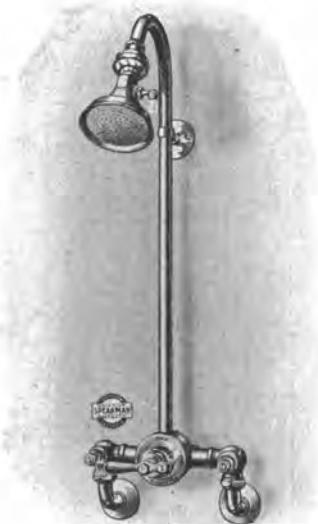


Fig. 5372A

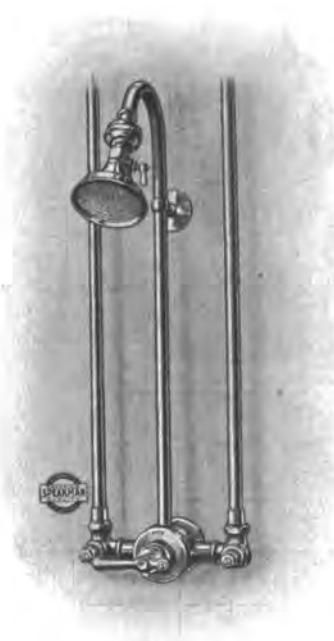


Fig. 5372B

Nickel-plated Brass Shower with $\frac{1}{2}$ -inch Mixometer, 4-inch Nickel-plated Cast Brass Adjustable Ball Joint Any-force Shower Head, $\frac{1}{2}$ -inch Goose Neck Discharge Pipe with Support, $\frac{1}{2}$ -inch Lock Shield Control Valves with Elbow Couplings to Wall.

Price, $\frac{1}{2}$ -inch as described

Under high pressure not everybody can stand the sting from a shower head when it is turned on full. At the same time some people like the strong flow.

Nickel-plated Brass Shower with $\frac{1}{2}$ -inch Mixometer, 4-inch Nickel-plated Cast Brass Adjustable Ball Joint Any-force Shower Head, $\frac{1}{2}$ -inch Goose Neck Discharge Pipe with Support, $\frac{1}{2}$ -inch Lock Shield Control Valves with $\frac{1}{2}$ -inch Nickel-plated Supply Pipes from Overhead.

Price, $\frac{1}{2}$ -inch as described
" $\frac{3}{4}$ " " " "

By the patented Anyforce Shower Head the bather can regulate the pressure from as strong as the shower will give to as mild as wanted, by simply turning the china lever handle.

SHOWER BATHS

SPEAKMAN'S

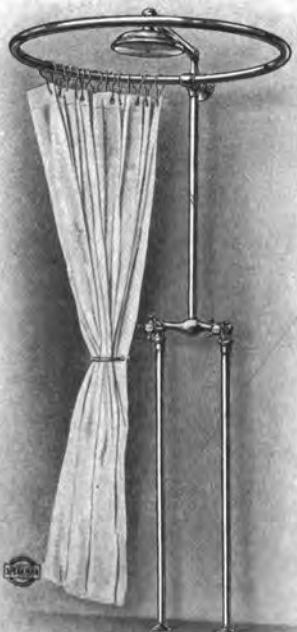


Fig. 5376A



Fig. 5376B

Nickel-plated Shower with Nickel-plated Shower Head, Compression Supply Valves with China Index Handles and $\frac{1}{2}$ -inch Supply Pipes to Floor, 24-inch Curtain Ring, White Duck Curtain, Curtain Snaps and Hook.

Price, as described

Nickel-plated Shower with Nickel-plated Shower Head, Compression Supply Valves with China Index Handles and $\frac{1}{2}$ -inch Supply Pipes to Wall, 24-inch Curtain Ring, White Duck Curtain, Curtain Snaps and Hook.

Price, as described

SHOWER BATHS

SUPPLY PIPES
TO WALL

PORTABLE



Fig. 11696A

Nickel-plated Brass Shower Bath with Head Shower, 24-inch Diameter Curtain Ring, White Duck Curtain, Compression Valves with Solid China Cross-arm Handles and $\frac{1}{2}$ -inch Supply Pipes to Wall.

Price, as described
If with Shampoo, add
.....

Nickel-plated Brass Portable Shower Bath with Head Shower, 24-inch Diameter Curtain Ring, White Duck Curtain and and Rubber Hose with Improved Holdfast Faucet Connection.

Price, as described
.....



Fig. 11696B

INDUSTRIAL SHOWER BATHS

SPEAKMAN'S

WITH MIXOMETER VALVE

WITH COMPRESSION VALVES



Fig. 33382A

Industrial Mixometer Shower, $\frac{1}{2}$ -inch Size, with Elbow Couplings to take Supplies from Overhead, Wall or Floor, Galvanized Gooseneck Discharge Pipe with 4-inch Cast Brass Head, Rough Nickel-plated.

Price as described.....

When installing this shower it is desirable to put controlling stops in the supplies so as to permit the volume of water to be reduced and thus economize in its use.



Fig. 33382B

Industrial Columbia Shower, $\frac{1}{2}$ -inch Compression Valves with Union Couplings to take Supplies from Overhead, Galvanized Gooseneck Discharge pipe with 4-inch Cast Brass Head, Rough Nickel-plated.

Price as described.....

Center to center of inlets 5 inches. The valves should be placed 5 feet above the floor.

SET IN BATTERY



Fig. 33382C

Industrial Combination Valve Shower with $\frac{3}{4}$ -inch Male Union Couplings, Galvanized Gooseneck Discharge Pipe with 4-inch Cast Brass Head. Rough Nickel-plated.

Price, Less Horizontal Pipes.....each

Any number of showers can be placed in a battery. The size of the supplies will depend upon the number of showers to be supplied.

Center to center of inlets 3 inches. The horizontal supply pipes should be placed about 5 feet from the floor.

SHOWER HEADS AND VALVES, ETC.

NEEDLE SHOWER HEADS



Fig. 5804A

Nickel-plated Needle Heads with Iron Pipe Inlet.

Diam. inches	4	5	$6\frac{1}{2}$	8
Size Inlet " "	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Price each	3.00	3.35	4.35	5.65

NEEDLE SHOWER HEADS
WITH REMOVABLE FACE

Fig. 5804D

Nickel-plated Needle Shower Heads with Removable Face and Female Iron Pipe Inlet.

Diameter inches	5	$6\frac{1}{2}$	8
Size Inlet " "	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Price each	5.65	6.65	8.00

TUBULAR SHOWER HEADS



Fig. 5804B

Nickel-plated Brass Tubular Shower Heads with $\frac{1}{2}$ -inch Male Iron Pipe Thread.

Price, 8-in. Diameter each	8.75
Larger sizes upon application.	

SELF CLOSING SHOWER VALVES



Fig. 5804C

Nickel-plated Self Closing Shower Valve with Lever, Chain and Pull. Made to be used either horizontally or vertically. Always furnished for vertical pipe unless otherwise ordered.

Size inches	$\frac{1}{2}$	$\frac{3}{4}$
Price each	9.00	11.75

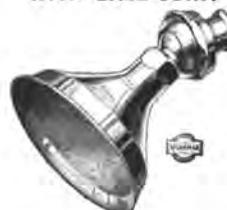
SHOWER HEADS
WITH BALL JOINT

Fig. 5804E

Cast Brass Shower Head with Removable Face and Adjustable Ball Joint with Female Iron Pipe Inlet.

Diam. Face inches	4	5	6
Size Inlet "	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Price, Rough Brass each	5.35	6.00	7.65

Price, N. P. each	6.65	8.00	10.00
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ADJUSTABLE BALL JOINTS



Fig. 5804F

Nickel-plated Brass Adjustable Ball Joint for use on Shower Head.

Size inches	$\frac{1}{2}$	$\frac{3}{4}$
Price each	2.65	3.35

SHOWER HEADS, SPRAYS AND VALVES

VITREOUS CHINA SHOWER HEADS



Fig. 1723A

These vitreous heads overcome the objectionable corroding common to the brass shower heads and necessitates no polishing to keep clean. It is found advantageous in localities where lime or alkalies are found in the water. Salt water not affecting its china surface, makes it an indispensable fixture for use on ocean steamers. The $6\frac{1}{2}$ -inch shower head should only be used at an angle when supplied by a $\frac{3}{4}$ -inch pipe.

Diameter of Face....inches $4\frac{1}{2}$ $6\frac{1}{2}$
Price, with $\frac{3}{4}$ -inch N. P.

Brass Spuds..... 3.00 3.50

COMPRESSION SHOWER VALVES
CONCEALED TYPE

Fig. 1723B

These valves are heavy pattern with large water way and high removable seat; stem has swivel disc. Working parts removable from face of finished wall. Have china cross handles and china escutcheons.

Extreme measurement of adjustment from center of valve to back of flange, $3\frac{1}{2}$ inches.

Size.....inches $\frac{1}{2}$ $\frac{3}{4}$
Price.....each 5.00 6.00

SHAMPOO SPRAYS
RUBBER BOUND WITH
ONE-PIECE SHANK

Fig. 1723C

Size Face....inches $2\frac{1}{2}$ 3 $3\frac{1}{2}$
Price, N. P...per doz. 8.60 12.00 18.00

WITH DETACHABLE SHANK



Fig. 1723D

Size Face....inches $2\frac{1}{2}$ 3 $3\frac{1}{2}$
Price, N. P...per doz. 14.00 19.40 29.40

WITH ROSEWOOD HANDLE



Fig. 1723E

Size Over Ring....in. 3 $3\frac{1}{2}$ 4
Price.....each 4.00 5.50 7.00

SPRAY WITH FAUCET CONNECTION



Fig. 1723F

3-inch rubber bound spray with 5 feet of $\frac{3}{8}$ -inch rubber tubing and faucet connection.

Price.....each 3.50
" with Dble. Faucet Con.. " 5.00

SHOWER ACCESSORIES

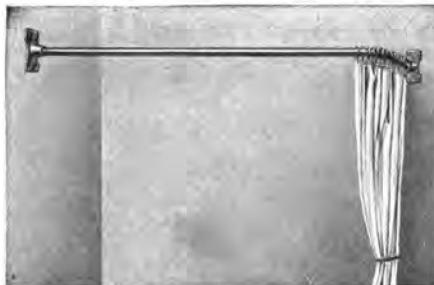


Fig. 12771A

CURTAIN ROD

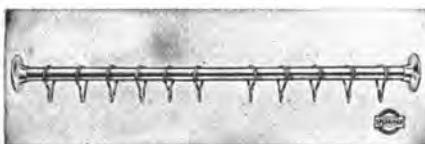


Fig. 12771B

CURTAIN RODS

Nickel-plated curtain rod with heavy flanges, curtain hooks, duck curtain and hold-back hook, for corner built-in tub. Dimensions: Rod, 28 inches wide by 57 inches long; curtain, 99 inches wide by 75 inches long.

Price.....each 40.00

CURTAIN SNAPS



Fig. 12771C Fig. 12771D

SHOWER CURTAINS

White Duck Curtains of best quality, thoroughly shrunk.

STOCK SIZES FOR STALLS

39 inches wide by 75 inches long.

45 " " " 75 "

51 " " " 75 "

STOCK SIZE FOR RECESS TUB

72 inches wide by 75 inches long.

Any special size curtain can be furnished.

Prices upon application.



图 13771E

SHOWER RECEPTORS

ENAMELED IRON

WITH APRON TO FLOOR

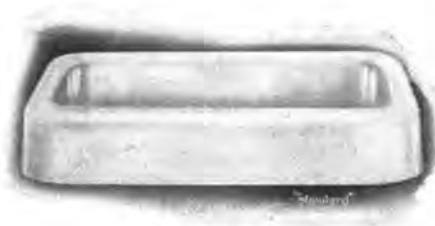


Fig. 6224A

Enamelled Iron Square Receptor with Apron to Floor, Nickel-plated Strainer.

Size, 38x38 inches Width of Rim, 3 inches
Depth 6½ inches Height, 7 inches

Prices, as described.....

ENAMELED IRON

ROLL RIM ON BASE



Fig. 6224B

Enamelled Iron Roll Rim Receptor on Base with Nickel-plated Strainer and Waste Connection.

Size Inches	Width of Rim Inches	Depth Inches	Height Inches
36x36	2	6	9¾
42x42	2½	8	12
Size..... inches		36x36	42x42
Price, as described.....			...
Add for No. 1 Zinc White Ex- terior Finish..... each			....
Add for Albadent White Ex- terior Finish..... each			....

ENAMELED IRON

WITH APRON FOR RECESS



Fig. 6224C

Enamelled Iron Recess Receptor with Apron to Floor, to tile into Wall, with Nickel-plated Strainer.

Width of Rim at Front, 2 inches
Depth at Outlet, 3¾ inches

Size..... inches 36x36 42x42
Price, as described.....

Can be arranged to set in batteries of any number.

UNIVERSAL PORCELAIN



Fig. 6224D

Porcelain Universal Shower Receptor, Glazed on All Sides, with Nickel-plated Brass Outlet Strainer and Connection for either 2-inch Lead or Iron Pipe.

Depth Outside, 7 inches

Size, Outside..... inches 36x36 42x42
Price, as described.....

This receptor may be used in a recess, corner or any place where a receptor is required.

Prices on porcelain receptors are for kiln run ware. Extra charge will be made for special selection.

VITREOUS CHINA LAVATORIES



Fig. 702A

Vitreous China Straight Front Lavatory with Square Basin, Integral Supply with Hooded Overflow and Overflow Cleansing Device, Anti-splash Rim, Vitreous China Pedestal and Wall Supports, fitted with Compression Supply Valves with Solid China Cross-arm Handles, and Escutcheons, and Pop-up Waste Fitting with Solid China Knob and Escutcheons, Nickel-plated Supply Pipes to Wall with China Handle Stops, and Nickel-plated P Trap.

Slab 20x24 inches	Basin 12x16 inches
Slab 22x27 inches	Basin 13x18 inches
Slab 24x30 inches	Basin 13x18 inches

Size	inches	20x24	22x27	24x30
Price, as described . . . . .		.....	.....	.....
" Less Trap and Supply Pipes . . . . .		.....	.....	.....

As this lavatory is made with an integral supply nozzle with patented overflow cleanser, it is sold only with the special fittings as shown, less supply pipes and trap.

VITREOUS CHINA LAVATORIES



Fig. 889A

Vitreous China Straight Front Lavatory with D Pattern Basin, Hooded Overflow and Splash Rim, Vitreous China Pedestal and Wall Supports, fitted with Nickel-plated Compression Combination Supply and Pop-up Waste Fitting with China Cross Handles and China Escutcheons and China Knob on Waste, Nickel-plated Supply Pipes to Wall and Nickel-plated Vented P Trap.

Slab 20x24 inches	Basin 12x16 inches
Slab 22x27 inches	Basin 13x18 inches
Slab 24x30 inches	Basin 13x18 inches

Size.....	.....inches	20x24	22x27	24x30
Price, as described
" without Fittings.....

VITREOUS CHINA LAVATORIES



Fig. 33394A

Vitreous China Straight Front Lavatory with Square Basin, Integral Supply Nozzle, Hooded Overflow with Overflow Cleansing Device, Anti-splash Rim, Vitreous China Leg and Rod with Nickel-plated Brass Wall Brackets, Combination Compression Supply and Pop-up Waste Fitting with China Cross Handles, China Knob and China Escutcheons, Nickel-plated Supply Pipes to Wall and Nickel-plated Offset P Trap.

Slab 18x20 inches	Basin 10x14 inches
Slab 20x24 inches	Basin 12x16 inches

Sizes.....	.....inches	18x20	20x24
Price, as described.....	.....	.....	.....

As this lavatory is made with an integral supply nozzle with patented overflow cleanser, it is sold only with special fittings complete.

Vitreous China Straight Front Lavatory with Oval Basin, Hooded Overflow, Anti-splash Rim, Galvanized Iron Legs and Brackets, Nickel-plated Compression Faucets, with China Index Handles, Nickel-plated Plugs with Rubber Stoppers, Nickel-plated Chains and Chain Stays.

Slab 18x20 inches	Basin 12x16 inches
Slab 20x24 inches	Basin 12x16 inches

Sizes.....	.....inches	18x20	20x24
Price, as described.....	.....	.....	.....
" Less Faucets, Plug and Chain.....	.....	.....	.....
Price, Lavatory only, Less Legs.....	.....	.....	.....
Traps and waste pipe extra.			



Fig. 33394B

VITREOUS CHINA LAVATORIES



Fig. 1510A

Vitreous China Straight Front Lavatory with Integral Back, D Pattern Basin, Hooded Overflow and Splash Rim, Vitreous China Leg and Rod, Combination Compression Supply and Pop-up Waste Fitting with China Cross Handles, China Knob and China Escutcheons, Nickel-plated Supply Pipes to Wall with China Handle Stops and China Escutcheon and Nickel-plated P Trap.

Slab 20x24 inches Basin 12x16 inches Back 6 inches

Size..... inches 20x24
Price, as described.....
" without Fittings.....

VITREOUS CHINA LAVATORIES



Fig. 34973A

Vitreous China Straight Front Lavatory, Vitreous China Legs and Wall Supports, Square Basin with Integral Nozzle Supply, Patented Cleaning Overflow, Compression Supply Valves with China Cross-arm Handles and Escutcheons and Pop-up Waste with China Knob and Escutcheon, 1½-inch Nickel-plated Brass Non-syphoning Trap to Wall and ¾-inch Nickel-plated Brass Supply Pipes to Wall with China Handle Stop and China Wall Escutcheons.

Lavatory 22x27 inches	Basin 13x18 inches
Lavatory 24x30 inches	Basin 13x18 inches

Size.....	....., inches	22x27	24x30
Price, as described, with Trap and Supply Pipes to Wall.....
" " " " " " " " Floor.....

As this lavatory is made with integral supply nozzle with patented overflow cleanser, it is sold only with the special fittings as shown, less supply pipes and trap.

VITREOUS CHINA LAVATORIES



Fig. 1701A

Vitreous China Straight Front Lavatory with D Pattern Quick Drain Bowl, Anti-splash Rim, Improved Sanitary Open Overflow and Integral China Mixing Chamber with Single-stream Integral Nozzle, concealed Carrier built in Wall and Floor, with Brackets Concealed in Slab, fitted with Compression Valves with Four-arm Solid China Handles and China Escutcheons, Lift Waste with China Knob and Escutcheon, Nickel-plated Supplies to Wall, Angle Shut-off Valves, and Nickel-plated P Trap.

Slab 22x27 inches Basin 13x17 inches
Slab 24x30 inches Basin 14x20 inches

Size.....	.....inches	22x27	24x30
Price, as described.....		.....	.....

This lavatory can be furnished at lower price with a carrier that bolts to the studding and does not extend down to and into floor, but uses the same concealed bracket as shown below and is known as Studding Carrier.

Same Lavatory as above, except fitted with Combination Nickel-plated Brass Single-stream Spout Supply and Waste Fitting, Compression Valves with Four-arm Solid China Handles and China Escutcheons, Lift Waste with China Knob.



Fig. 1701B

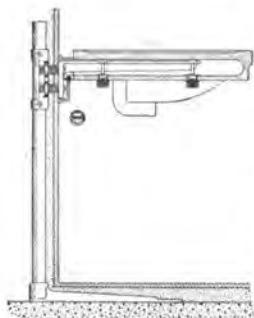


Fig. 1701C

FLOOR-WALL CARRIERS

This carrier is built into the floor and wall, completely covered by floor and wall finish and carries the lavatory without placing any part of the weight of the lavatory on the wall structure. The above lavatory is so made as to conceal the bracket in between the top and bottom slab of the lavatory, the part of bracket between the lavatory and wall being covered by a china escutcheon.

VITREOUS CHINA LAVATORIES



Fig. 18241A



Fig. 18241B

FIG. 18241A

Vitreous China Straight Front Lavatory with Integral Back, Square Basin with Integral Nozzle Supply, Hooded Overflow with Cleansing Device, Anti-splash Rim, Concealed Wall Hanger, Combination Compression Supply and Pop-up Waste Fitting with China Cross Handles, China Knob and China Escutcheons, Nickel-plated Supply Pipes to Wall and Nickel-plated Offset P Trap.

Slab 18x20 inches	Basin 10½x14¾ inches	Back 6 inches		
Slab 20x24 inches	Basin 12 x 16 inches	Back 6 inches		
Size .....		..... inches	18x20	20x24
Price, as described .....		.....	.....	.....
" less Supply Pipes and Trap .....		.....	.....	.....

FIG. 18241B

Vitreous China Straight Front Lavatory with Integral Back and D Pattern Basin, with Patent Overflow and Anti-splash Rim, Concealed Wall Hanger, Nickel-plated Compression Faucets with Four-ball Cross Handles and China Indexes, Nickel-plated Supply Pipes to Wall, Nickel-plated Pop-up Waste and China Knob and Escutcheon and Nickel-plated P Trap.

Slab 18x20 inches	Basin 10½x14½ inches	Back 6 inches		
Price, as described .....		.....	.....	.....
" without Fittings .....		.....	.....	.....

VITREOUS CHINA LAVATORIES



Fig. 19620A

Vitreous China Corner Lavatory with Integral Back, Basin with Patent Overflow and Anti-splash Rim, Concealed Wall Hangers, Nickel-plated Push Button Self-closing Faucets with China Indexes, Nickel-plated Supply Pipes to Wall, Nickel-plated P Trap, Chain, Chain Stay and Plug.

Slab 16x16 inches Basin 10x14 inches
Back 6 inches

Price, as described .....	.....
" without Fittings .....	.....

Vitreous China Prison Lavatory with Integral Supply Nozzle, Integral Soap Dish and Self-closing Push Button Valve and Slow Draining Outlet to Wall.

Size 14x14 inches Back 6 inches
Depth of Bowl $5\frac{1}{2}$ inches

Price, as described

All working parts are behind partition.
May also be furnished with unremovable plug instead of slow draining feature.



Fig. 19620B

This lavatory is also made with a drinking fountain attachment. The placing of the finger over the integral supply nozzle forces the water through a small hole which is placed in this nozzle for drinking purposes.

Sizes same as above.

Price, as described

VITREOUS CHINA LAVATORIES



Fig. 5781A

Vitreous China, Round Front Space-saving Lavatory with Anti-splash Rim Hooded Overflow, Integral Back and Concealed Hanger, fitted with Pop-up Waste Fixture with Four-arm China Handle and China Escutcheon, Nickel-plated Brass Compression Faucets, with China Indexed Handles, Nickel-plated Anti-siphon P Trap to Wall and Nickel-plated Supply Pipes to Wall with China Handle Stop Valves.

Size 24x14½ inches Basin 16¾x10x6 inches
Basin 5 inches

Price, as described.....



Fig. 5781B

Vitreous China Dental Lavatory with Straight Front, Integral Back and Integral Nozzle Supply, Concealed Hangers, Compression Supply Valves with China Cross Handles and China Escutcheons and Waste Plug with Loose China Grid.

Size 14x13 inches Back 5 inches
Basin 9¾x7½x4½

Price, as described.....

Trap and supply pipes, extra.

These fixtures are especially useful in that they overcome the unsanitary condition caused by washing the teeth in the regular lavatory. They can also be used to advantage in first floor toilet rooms.



Fig. 5781C

Vitreous China Dental Lavatory with Integral Back and Jet, Integral Trap, Brass Outlet Connection and fitted with Compression Valve with Solid China Indexed Handle and Stop Valve.

Length 13 inches Width 10½ inches

Price, as described.....

Every bathroom should have a separate lavatory for washing the mouth and teeth.

This is an inexpensive lavatory designed to meet the demand for such a fixture.

A glass can be filled from the stream.

VITREOUS CHINA MANICURING TABLES

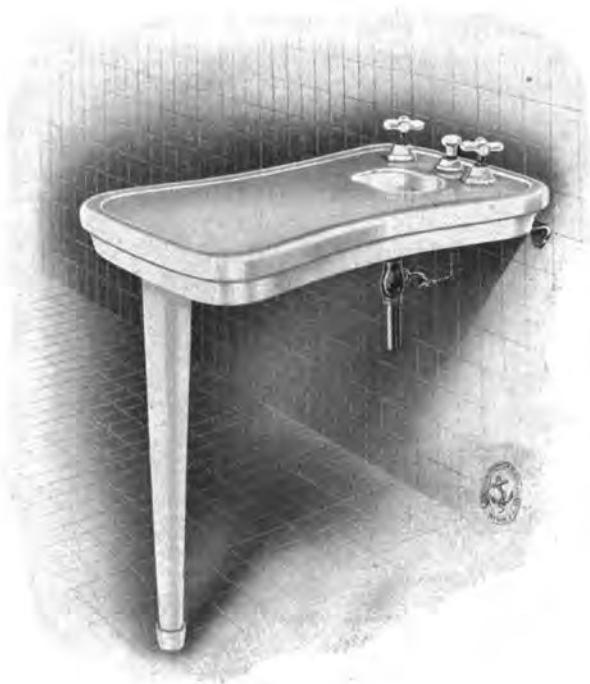


Fig. 14605A

Vitreous China Manicuring Table with Basin, Integral Supply and Hooded Overflow, Supported on Vitreous China Leg and Rod and Nickel-plated Brass Wall Brackets. Fitted with Compression Supply Valves with China Four-arm Handles and Escutcheons and Nickel-plated Pop-up Waste with China Knob and Escutcheons, Supplies and Trap.

Size 18x32 inches Basin 6 inches

Price, as described.....

This table is a distinct improvement over that having a center bowl in that the operating fixtures are convenient and are not in the way of the user. With the Madadore Table the operating fixtures are accessible to the manicurist from either side. All operating parts are on top of slab.

ENAMELED IRON LAVATORIES



Fig. 3128A

Enameled Iron Pedestal Lavatory with Oval Slab, Oval Basin with Rear Outlet and Apron all in one piece, Enameled Iron Fluted Column Pedestal, Nickel-plated Compression Faucets with China Cross Handles and China Indexes, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, with China Indexed Stops, Nickel-plated Standing Waste and Overflow with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap.

Slab 18x27 inches Basin 11x15 inches
Slab 22x33 inches Basin 13x18 inches

Size.....	.....inches	18x27	22x33
Price, as described	.....	.....	.....
" without Fittings	.....	.....	.....
If with Combination Supply and Waste Fittings, add	.....	.....	.....



Fig. 3128B



Fig. 3128C

Enameled Iron Pedestal Lavatory with Slab, Oval Basin with Rear Outlet and Apron all in one piece, Enameled Iron Plain Square Pedestal, Nickel-plated Compression Faucets with China Cross Handles and China Indexes, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall with China Indexed Stops, Nickel-plated Standing Waste and Overflow with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap.

Slab 24x33 inches Basin 14x20 inches

Price, as described	.....	.....
" without Fittings	.....	.....
If with Combination Compression Supply and Waste Fittings, add	.....	.....

ENAMELED IRON LAVATORIES



Fig. 34619A



Fig. 34619B

FIG. 34619A

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Patent Overflow and Apron all in one piece, Enameled Pedestal, Nickel-plated Compression Faucets with China Cross Handles and China Indexes, Nickel-plated Supply Pipes to Wall with China Indexed Stops, Pop-up Waste with China Knob and 1½-inch Nickel-plated P Trap.

Slab 20x24 inches	Basin 12x15 inches
Slab 22x27 inches	Basin 13x17 inches
Slab 22x30 inches	Basin 13x17 inches

Size.....	.....inches	20x24	22x27	22x30
Price, as described.....	.....	.....	.....	.....
" without Fittings.....	.....	.....	.....	.....

FIG. 34619B

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Patent Overflow and Apron all in one piece, Enameled Pedestal, Nickel-plated Compression Combination Supply and Pop-up Waste Fitting with China Handles, China Indexes, China Escutcheons and China Knob, Nickel-plated Supply Pipes to Wall with China Indexed Stops and 1¼-inch Nickel-plated P Trap.

Slab 20x24 inches	Basin 12x15 inches
Slab 22x27 inches	Basin 13x17 inches
Slab 22x30 inches	Basin 13x17 inches

Size.....	.....inches	20x24	22x27	22x30
Price, as described.....	.....	.....	.....	.....
" without Fittings.....	.....	.....	.....	.....

ENAMELED IRON LAVATORIES



Fig. 34748A



Fig. 34748B

FIG. 34748A

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet and Apron all in one piece, Enameled Iron Plain Square Pedestal, Nickel-plated Compression Faucets with China Cross Handles and China Indexes, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall with China Indexed Stops, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Plug and Chain.

Can be furnished with Pop-up Waste if desired.

Slab 20x24 inches	Basin 12x15 inches
Slab 22x27 inches	Basin 13x17 inches
Slab 22x30 inches	Basin 13x17 inches

Size	inches	20x24	22x27	22x30
Price, as described . . . . .		.....	.....	.....
" without Fittings . . . . .		.....	.....	.....

FIG. 34748B

Enameled Iron Pedestal Lavatory with Slab, Oval Basin with Rear Outlets and Apron all in one piece, Enameled Iron Plain Square Pedestal, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall with China Indexed Stops, Nickel-plated Standing Waste with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap.

Slab 20x24 inches	Basin 12x15 inches
Slab 22x27 inches	Basin 13x17 inches
Slab 22x30 inches	Basin 13x17 inches

Size	inches	20x24	22x27	22x30
Price, as described . . . . .		.....	.....	.....
" without Fittings . . . . .		.....	.....	.....

ENAMELED IRON LAVATORIES



Fig. 6512A



Fig. 6512B

FIG. 6512A

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with Four-ball China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, Nickel-plated Standing Waste with China Indexed Knob and $1\frac{1}{4}$ -inch Bag trap.

Slab 18x24 inches	Basin 11x16 inches	Back 10 inches
Slab 20x24 inches	Basin 11x16 inches	Back 12 inches
Slab 22x27 inches	Basin 13x17 inches	Back 12 inches

Size.....	.....inches	18x24	20x24	22x27
Price, as described.....	.....	.....	.....	.....
" without Fittings.....	.....	.....	.....	.....
If with Stops on Supplies, add.....	.....	.....	.....	.....

FIG. 6512B

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Patent Overflow, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with Four-ball China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall and $1\frac{1}{4}$ -inch P Trap.

Slab 17x21 inches	Basin 10 $\frac{1}{2}$ x15 inches	Back 8 inches
Slab 18x24 inches	Basin 11 x16 inches	Back 10 inches
Slab 20x24 inches	Basin 11 x16 inches	Back 12 inches

Size.....	.....inches	17x21	18x24	20x24	22x27
Price, as described.....	.....	.....	.....	.....	.....
" without Fittings.....	.....	.....	.....	.....	.....
Can be furnished with Pop-up Waste if desired.	.....	.....	.....	.....	.....

ENAMELED IRON LAVATORIES



Fig. 8368A



Fig. 8368B

FIG. 8368A

Enameled Iron Lavatory with Slab, Rear Outlet Oval Basin, Overflow, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with China Index Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab 19x24 inches Basin 12x15 inches Back 10 inches

Price, as described.....	.....
" without Fittings.....	.....
If with Stops on Supplies, add.....	.....
" " Pop-up Waste, add.....	.....

FIG. 8368B

Enameled Iron Lavatory with Slab, Rear Outlet Oval Basin, Overflow, Back and Apron all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with China Index Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab 17x19 inches Basin $10\frac{1}{2}$ x15 inches Back 6 inches

Price, as described.....	.....
" without Fittings.....	.....
If with China Indexed Stops on Supplies, add.....	.....

ENAMELED IRON LAVATORIES



Fig. 3039A

Enameled Iron Lavatory with Slab, Rear Outlet Oval Basin, Overflow, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab 18x21 inches Basin $10\frac{1}{4} \times 14\frac{1}{2}$ inches
Back 8 inches

Price, as described.....
" without Fittings.....
If with Stops on Supplies, add..
Can be furnished with Pop-up Waste if desired.

Enameled Iron Lavatory with Slab, Rear Outlet Oval Basin, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with Indexed China Cross Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, Nickel-plated Standing Waste with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap.

Slab 18x21 inches Basin $10\frac{1}{4} \times 14\frac{1}{2}$ inches
Back 8 inches

Price, as described.....
" without Fittings
If with Stops on Supplies, add..



Fig. 3039B

ENAMELED IRON LAVATORIES



Fig. 14682A



Fig. 14682B

FIG. 14682A

Enameled Iron Corner Lavatory with Slab, Oval Basin, Back and Apron all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with Four-ball China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, Standing Waste and Overflow with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap.

Slab on Sides, 16 inches	Basin, 11 x14 inches	Back, 6 inches
Slab on Sides, 19 inches	Basin, $10\frac{1}{2} \times 15$ inches	Back, 8 inches
Slab on Sides, 20 inches	Basin, $11\frac{1}{2} \times 15$ inches	Back, 10 inches

Sizes..... inches 16x16 19x19 20x20

Price, as described.....

" without Fittings.....

If with China Indexed Stops on Supply Pipes, add.....

FIG. 14682B

Enameled Iron Corner Lavatory with Slab, Oval Basin with Rear Outlet, Patent Overflow, Back and Apron all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with Four-ball China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, Nickel-plated Pop-up Waste with China Knob and $1\frac{1}{4}$ -inch Nickel-plated P Trap.

Slab on Sides, 19 inches	Basin, $10\frac{1}{2} \times 15$ inches	Back, 8 inches
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Price, as described.....

" without Fittings.....

If with China Indexed Stops on Supplies, add.....

ENAMELED IRON LAVATORIES

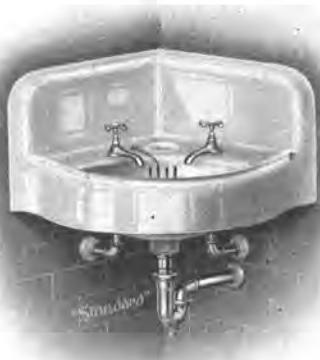


Fig. 5854A



Fig. 5854B

FIG. 5854A

Enameled Iron Corner Lavatory with Slab, Oval Basin, with Rear Outlet and Patent Overflow, Back and Apron and Depressed Soap Dish all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab on Sides 19 inches Basin $10\frac{1}{2} \times 15$ inches Back 8 inches

Price, as described .....	.....
" without Fittings .....	.....
If with China Indexed Stops on Supplies, add .....	.....
" " Standing Waste and Overflow with China Knob, add .....	.....
" " Pop-up " with China Knob, add .....	.....

FIG. 5854B

Enameled Iron Corner Lavatory with Slab, Oval Basin with Center Outlet, Patent Overflow Back and Apron and Depressed Soap Dish all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab on Sides 16 inches Basin 11x14 inches Back 6 inches

Price, as described .....	.....
" without Fittings .....	.....
If with China Indexed Stops on Supplies, add .....	.....
" " Standing Waste and Overflow with China Knob, add .....	.....

ENAMELED IRON LAVATORIES



Fig. 8407A



Fig. 8407B

FIG. 8407A

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Overflow and Back all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug Chain, Chain Stay and Integral Soap Dish.

Slab 18x21 inches Basin $10\frac{1}{2} \times 14\frac{1}{2}$ inches Back 8 inches

Price, as described.....	.....
" without Fittings.....	.....
If with China Indexed Stops on Supplies, add .....	.....
" " Pop-up Waste, add .....	.....

FIG. 8407B

Enameled Iron Lavatory with Slab, Oval Basin with Rear Outlet, Overflow and Back all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug Chain, and Chain Stay and Integral Soap Dish.

Slab 17x19 inches Basin $10\frac{1}{2} \times 15$ inches Back 6 inches

Price, as described.....	.....
" without Fittings.....	.....
If with China Indexed Stops on Supplies, add .....	.....

ENAMELED IRON LAVATORIES



Fig. 6350A



Fig. 6350B

FIG. 6350A

Enameled Iron Corner Lavatory with Slab, Depressed Soap Dish, Oval Basin with Rear Outlet, Patent Overflow and Back all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab on Sides 19 inches Basin $10\frac{1}{2} \times 14\frac{1}{2}$ inches Back 8 inches

Price, as described
" without Fittings
If with China Indexed Stops on Supplies, add

FIG. 6350B

Enameled Iron Corner Lavatory with Slab, Oval Basin with Center Outlet, Patent Overflow and Back all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with China Indexed Handles, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab on Sides 16 inches Basin 11×14 inches Back 6 inches

Price, as described
" without Fittings
If with China Indexed Stops on Supplies, add

ENAMELED IRON LAVATORIES



Fig. 8410A



Fig. 8410B

FIG. 8410A

Enameled Iron Lavatory with Slab, Round Basin with Center Outlet, Overflow and Back all in one piece, Concealed Wall Hanger, Nickel-plated Low Down Cross Handle Compression Faucets with China Indexes, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab 16x14 inches Basin 11 inches Back 5 inches

Price, as described.....	.....
“ without Fittings.....	.....
If with China Indexed Stops on Supplies, add.....	....

FIG. 8410B

Enameled Iron Corner Lavatory with Slab, Round Basin with Center Outlet, Overflow and Back all in one piece, Concealed Wall Hangers, Nickel-plated Low Down Cross Handle Compression Faucets with China Indexes, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, $1\frac{1}{4}$ -inch Nickel-plated P Trap, Rubber Plug, Chain and Chain Stay.

Slab on Sides 16 inches Basin 11 inches Back 5 inches

Price, as described.....	.....
“ without Fittings.....	.....
If with China Indexed Stops on Supplies, add.....	....

ENAMELED IRON LAVATORIES



Fig. 10137A

Enamelled Iron Lavatory with Slab, Oval Basin with Center Outlet, Overflow, Back and Apron all in one piece, Concealed Wall Hangers, Nickel-plated Compression Faucets with Four-ball China Index Handles $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall, 1 $\frac{1}{4}$ -inch Nickel-plated P Trap, Nickel-plated Waste Plug, Rubber Stopper, Chain and Chain Stay.

Slab 14x26 inches Basin 10x16 inches
Back 6 inches Apron 3 inches

Price, as described
" without Fittings



Fig. 10137B

Enamelled Iron Prison Lavatory with Slab, Soap Dish, Rear Outlet Oval Basin, Overflow and Back all in one piece, Nickel-plated Self-closing Faucet on Right-hand Side, Nickel-plated Supply Pipe and Waste Ell to Wall. Waste Plug and Rubber Stopper.

Size 12x15 inches Basin 9 $\frac{1}{2}$ x12 inches
Back 3 $\frac{3}{4}$ inches

Price, as described, Enamelled Inside
Price, Enamelled All Over
Can be furnished with soap dish at right side and faucet at left.



Fig. 10137C

Enamelled Iron Prison Lavatory with Slab, Basin, Overflow and Back all in one piece and Nickel-plated Self-closing Faucet. Waste Outlet threaded for 1-inch Iron Pipe.

Basin 12 inches Length of Back 15 inches
Height of Back 4 inches

Price, as described, Enamelled Inside
Price, Enamelled All Over

ENAMELED IRON LAVATORIES

IN BATTERIES

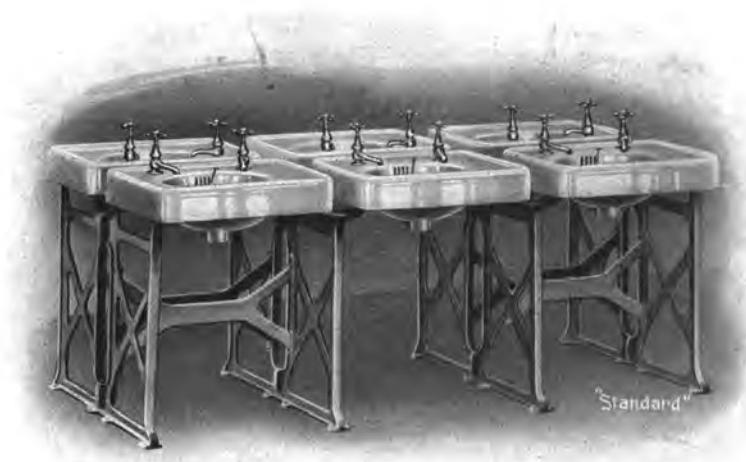


Fig. 6312A

Double Battery of Three Enameled Iron Lavatories, each Lavatory with Slab, Oval Basin with Center Outlet, Overflow and Apron, Painted Floor Brackets, Nickel-plated Low Down Compression Faucets with China Index Handles.

Slab 18x24 inches	Basin 10½x16 inches
Slab 20x24 inches	Basin 12 x15 inches
Slab 22x27 inches	Basin 13 x17 inches

Size .....	.....inches	18x24	20x24	22x27
Price, as described	each	.....	.....	.....
" without Fittings .....	"	.....	.....	.....
" Each Additional Double Section as described .....		.....	.....	.....
" " " " without Fittings		.....	.....	.....

ENAMELED IRON LAVATORIES
IN BATTERIES

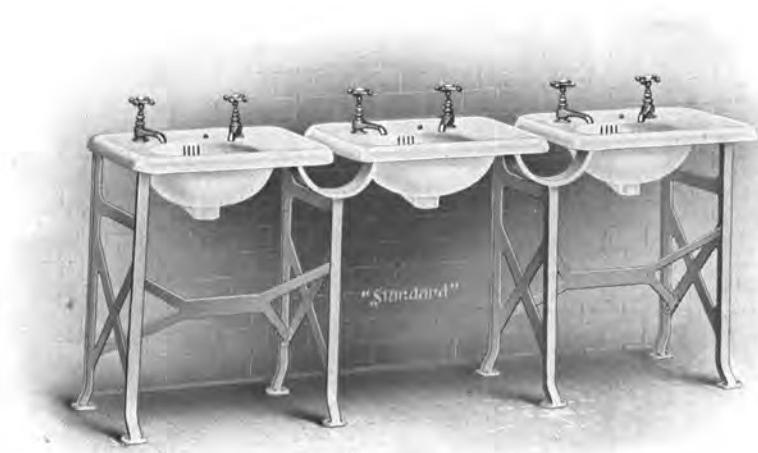


Fig. 41556A

Enameled Iron Three Single Section Lavatory with Rear Outlet Oval Bowls, Painted Brackets to Floor, Nickel-plated Compression Faucets with Four-ball China Index Handles.

Slab 16x20 inches Basin 10 $\frac{1}{2}$ x14 inches
Slab 18x24 inches Basin 10 $\frac{1}{2}$ x16 inches

Size.....	.....inches	16x20	18x24
Price, as described.....
" Each Additional Single Section

LAVATORY FITTINGS

ACTO POP-UP WASTE

STANDING WASTE
AND OVERFLOW

Fig. 12763A



Fig. 12763B

Nickel-plated Standing Waste and Overflow, with China Knob and 1 1/4-inch Diameter Tail	inches	1 1/2	1 5/8
Size, Outside Tube.....	each	11.50	14.00
Price.....			

Acto Nickel-plated Pop-up Waste, with China Knob, Full Waterway through Plug.	inches	1 1/4	....
Size.....	each	10.00	....
Price, with Nickel-plated Escutcheon.....	"	10.50	....

" " China Escutcheon.....

COMBINATION SUPPLY AND WASTE FITTINGS

WITH STANDING WASTE



Fig. 12763C

WITH POP-UP WASTE



Fig. 12763D

Combination Supply and Standing Waste and Overflow, with Compression Valves, China Handles and China Escutcheons.....	each	24.00
Combination Supply and Pop-up Waste, with Compression Valves, China Handles and China Escutcheons.....	each	24.00

BRASS LAVATORY TRAPS, ETC.

PLAIN BRASS TRAPS

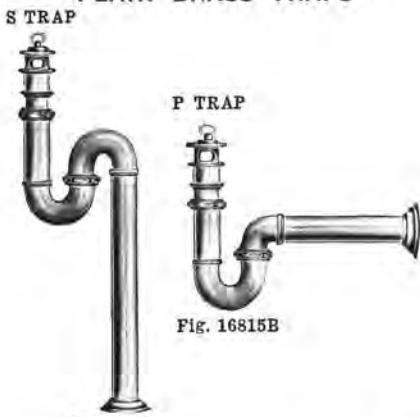


Fig. 16815A

Fig. 16815B

FEMCO DEEP SEAL ANTI-SYPHON TRAPS

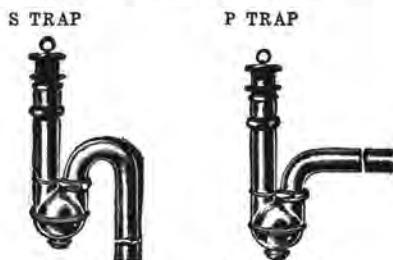


Fig. 16815E

Fig. 16815F

The body of the Femeo Trap is made of heavy drawn brass joined in the center by a solderless watertight joint.

The inlet is a continuous tube inserted to a point considerably below the center line, the outlet projection extending only to a point where it joins the body.

When conditions are such that syphonic action takes place, all the water is drawn out of the inlet tube without materially disturbing the water level in the body; as soon as the water in the inlet tube reaches the bottom of the tube, a sufficient amount of air is admitted to break the syphon, whereupon the water in the outlet tube and that in the body finds a level, submerging inlet tube and forming a seal, which cannot be broken.

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
Plain S Traps.....	each	5.25	6.55
S Traps with Vent.....	"	6.85	9.00
Plain P Traps.....	"	4.15	5.20
P Traps with Vent.....	"	6.20	8.35
If with Cleanout, add.....	"	.50	.50

CENTRIFUGAL ANTI-SYPHON

NEW YORK REGULATION P TRAP



Fig. 16815C

Fig. 16815D

CENTRIFUGAL ANTI-SYPHON TRAPS

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
S, Fin. Nickel-plated.....	each	9.00	12.00
S, Rough Nickel-plated.....	"	7.50	10.50
P, Fin. "	"	8.25	10.75
P, Rough " " "	"	6.75	9.25

NEW YORK REGULATION P TRAPS

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
Nickel-plated.....	each	4.25	6.00

P. O.
PLUG

Fig. 16815G

SINK CONNECTION



Fig. 16815H

URINAL CONNECTION



Fig. 16815J

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
P. O. Plugs.....	each	1.15	...
Sink Connections.....	"	.90	.90
Urinal.....	"	1.25	1.25

CLEAN SWEEP TRAPS

BRASS

FULL S. PLAIN



Fig. 22558A

HALF S. PLAIN

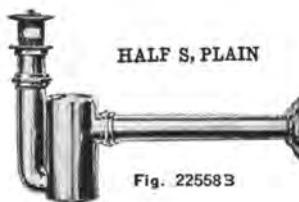


Fig. 22558 B

Size	Price, Full S Plain, Finished or Nickel-plated, with P. O. Plug	each	inches	$\frac{1}{4}$	$\frac{1}{2}$
" " S Vented	" " " "	" " " "	"	5.40	7.30
" Half S Plain,	" " " "	" " " "	"	6.50	8.40
" " S Vented,	" " " "	" " " "	"	5.00	6.90
				6.30	8.35

Deduct for P. O. plug, 50 cents.

BRASS OR LEAD

FULL S



Fig. 22558C

HALF S



Fig. 22558D

RUNNING



Fig. 22558 E

Description		WITHOUT VENT	WITH VENT				
Size	inches	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Lead, S.	each	1.20	1.55	2.30	1.80	2.35	3.00
" " Half S.	"	1.10	1.35	2.00	1.75	2.05	2.70
" " Running, with Flanged Cover	"	1.50	1.90	2.25	2.25	2.75	...
" N. P. Brass, S	"	3.20	4.30	....	3.70	4.80	...
" " Half S.	"	2.80	3.90	....	3.20	4.40	...
" Rough " Running, with Flange Cover	"	3.30	4.00	....	4.00	4.80	...

CONTINUOUS LAVATORY WASTES

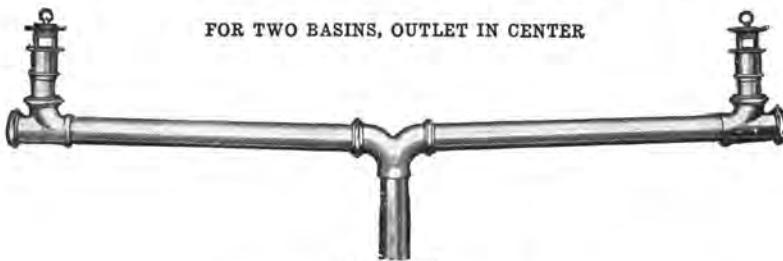


Fig. 3072A

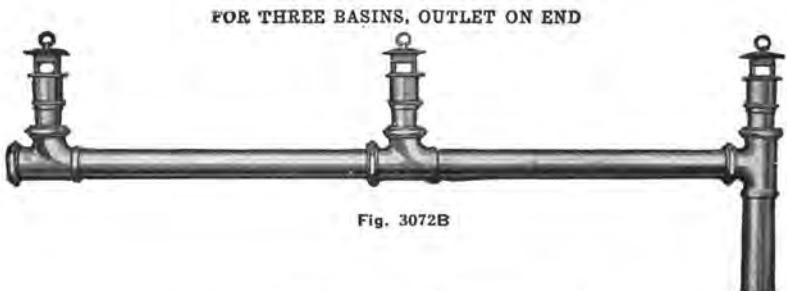


Fig. 3072B



Fig. 3072C

FOR LAVATORIES IN BATTERIES—THREE BASINS EACH SECTION.
OUTLET ON END

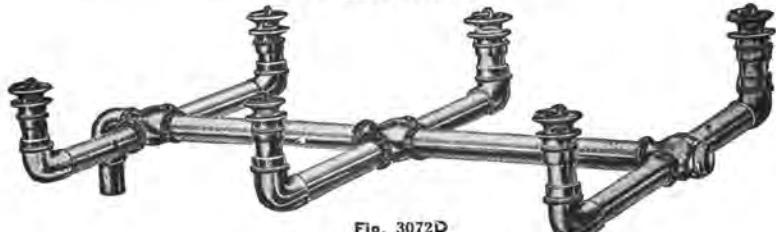


Fig. 3072D

In ordering, always specify whether with outlet on end or in center; be particular to give distance from center to center.

Prices on application.

BASIN COCKS

**QUICK COMPRESSION
WITH CHINA HANDLE
No. 16**



Fig. 37206A

Nickel-plated Quick Compression Basin Cock with China Indexed Handle.
Price.....per dozen 54.00

**COMPRESSION
WITH FOUR-BALL HANDLE
No. 6**



Fig. 37206B

Nickel-plated Compression Basin Cock with Four-ball China Indexed Handle.
Price.....per dozen 42.00

**COMPRESSION
WITH STUFFING BOX
No. 7**



Fig. 37206C

Nickel-plated Compression Basin Cock with Four-ball China Indexed Handle and Stuffing Box.
Price.....per dozen 47.40

**QUICK COMPRESSION
WITH CHINA SIDE HANDLE
No. 20**



Fig. 37206D

Nickel-plated Quick Compression Basin Cock with China Indexed Side Handle.
Price.....per dozen 60.00

**COMPRESSION
WITH SOLID CHINA HANDLE
No. 6½**



Fig. 37206E

Nickel-plated Compression Basin Cock with Solid China Cross Handle Indexed.
Price.....per dozen 48.00

**COMPRESSION
SEMI-LOW MIDGET
No. 1½**



Fig. 37206F

Nickel-plated Semi-low Compression Basin Cock with Four-ball China Index Handle.
Price.....per dozen 30.00

SELF-CLOSING BASIN COCKS

ZENITH PUSH BUTTONS



Fig. 29698A

The Zenith is a slow self-closing, self-measuring type, allowing a person to wash in running water. The flow is regulated by a regulating screw, closes with the pressure and does not hammer.

Price, with China Index Push
Button.....per dozen 87.00

ELITA FULCRUM HANDLE



Fig. 29698D

Nickel-plated with Nickel-plated Handle.

Price.....	per dozen	67.20
If with China Indexed Top, add		
.....	per dozen	3.60
If with China Handle, add		
.....	per dozen	12.00

BALL BEARING FOUR-ARM
HANDLE, CHINA BUTTON

Fig. 29698E

Price, Four-Arm, N. P., per dozen	70.20
" Six " "	72.60
" Crown Handle, N.P. "	70.20

PREMIER CROWN HANDLE



Fig. 29698F

Price, Plain Top, N. P., per dozen	69.60
" China Index Top, Nickel-plated,.....per dozen	70.80

DOHERTY



Fig. 29698C

Price, Nickel-plated,.....per dozen 52.20

LAVATORY FITTINGS**QUATURN—QUICK COMPRESSION****COMBINATION MIXING FAUCET**

Fig. 18186A

By use of this fitting the user is enabled to wash in tempered running water. It opens to full flow on one-eighth turn of the handle and comes to stop at one-quarter turn. The tailpieces measure $1\frac{3}{4}$ inches center to center, but as cock sets on angle, pipes should be roughed-in at wall about $1\frac{1}{2}$ inches apart, one somewhat above the other if angle stops are to be used.

The unused hole in the lavatory can be fitted with nickel plated soap dish with china cup, as shown, or any similar soap cup or chain stay.

Price, Combination Mixing Fauet with China

Handles, Indexed	each	13.50
" Soap Cup, as shown.....	"	5.00

SOAP CUP

Fig. 18186B

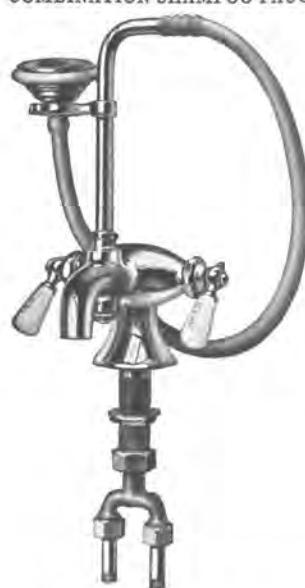
COMBINATION SHAMPOO FAUCET

Fig. 18186C

SINGLE PANTRY COCK

Fig. 18186D

DOUBLE PANTRY COCK

Fig. 18186E

COMBINATION MIXING BASIN AND SHAMPOO FAUCETS

Price, with China Handles, Indexed, Rubber Tubing and Spray.....each 30.00

PANTRY COCKS

Price, Single, Nickel-plated, with China Handles, Indexed.....each 6.50
" Double, " " " " " " " " " " each 15.00

SHAMPOO AND PANTRY COCKS

SHAMPOO FIXTURES

No. D470

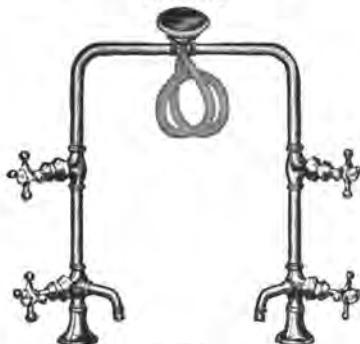


Fig. 1562A

With Compression Cocks with China Index Handles.
Price, Nickel-plated each 20.00

No. D472

Same as No. D470 but with Lever Handle Quick Compression Cocks.
Price, Nickel-plated each 24.00

No. D492

Similar to No. D470, but without Basin Cocks.
Price, Nickel-plated each 15.00

Above fittings made 12 inches center to center. Furnished complete with hose and sprinkler.

QUICKO SHAMPOO AND BASIN COCKS



Fig. 1562B

With China Lever Handles, Rubber Hose and Sprinkler.
Price, Nickel-plated each 19.00

SHAMPOO FIXTURES

No. D474

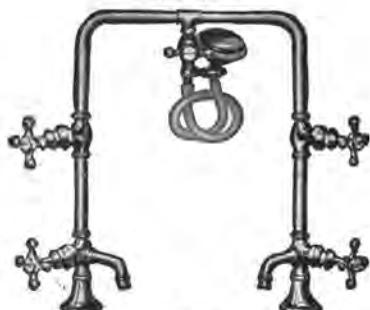


Fig. 1562C

With Compression Cocks with China Index Handles.
Price, Nickel-plated each 23.00

No. D475

Same as No. D474, except that Lower Basin Cocks are Quick Compression.
Price, Nickel-plated each 25.00

COMPRESSION PANTRY COCKS

Single



Double



Fig. 1562D

Price, Single, Tee Handle, per doz. 45.00
" Single China, Index Handle 57.60

.....per dozen 57.60
Price, Double, Plain Cross Handleseach 12.50

Price, Double, China Index Handleseach 14.10

QUICK COMPRESSION

Price, Single, China Handleper dozen 69.00
Price, Double, China Handlesper dozen

ENAMELED IRON BARBERS' LAVATORIES



Fig. 30370A

Enameled Iron Pedestal Barbers' Lavatory with Slab, Oval Basin with Rear Outlet, all in one piece, Enameled Pedestal, Nickel-plated Compression Shampoo and Basin Cock Combination with Four-Ball China Index Handles, Rubber Hose and Sprinkler, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall with China Indexed Stops, Standing Waste and Overflow with China Knob and $1\frac{1}{4}$ -inch Nickel-plated Bag Trap

Slab 20x24 inches
Slab 22x27 inches
Slab 22x30 inches

Basin 12x15 inches
Basin 13x17 inches
Basin 13x17 inches

Size.....	.....inches	20x24	22x27	22x30
Price, as Described .....	.....	.....	.....	.....
" without Fittings.....	.....	.....	.....	.....

ENAMELED IRON BARBERS' LAVATORIES



Fig. 41555A

Enamelled Iron Lavatory with Slab, Oval Bowl with Rear Outlet, Back and Apron all in one piece, Concealed Wall Hanger, Nickel-plated Compression Faucets with Four-ball China Indexed Handles, Nickel-plated China Knob Pop-up Waste, Nickel-plated Compression Double Shampoo Faucet with China Indexed Handles, Rubber Hose and Sprinkler, $\frac{3}{8}$ -inch Nickel-plated Supply Pipes to Wall with China Indexed Stops and $1\frac{1}{4}$ -inch Nickel-plated P Trap.

Slab 20x24 inches	Basin 11x16 inches	Back 12 inches
Slab 22x27 inches	Basin 13x17 inches	Back 12 inches

Price as described .....	.....
" without Fittings .....	.....

SURGEONS' VITREOUS CHINA LAVATORIES**WITH SPEAKMAN KNEE ACTION SUPPLY AND WASTE**

Fig. 22184A

Surgeons' Vitreous China Lavatory on Vitreous Legs with Wall Supports, Nickel-plated Wall-supported Knee Action Mixing Valve, with Nickel-plated Brass Stirrup Lever, Nickel-plated Supply Nozzle with Spray, Nickel-plated Supply Pipes to Wall with Controlling Stops, Knee Action Pop-up Waste with Nickel-plated Brass Stirrup Lever, and 1½-inch Nickel-plated P Trap to Wall.

Slab 24x36 inches Main Bowl 17x13x6 inches
Instrument Receptacle 14½x6½x1½ inches

Price, as Described.....
" without Fittings.....

**PORCELAIN HOSPITAL COMBINATION SINKS
AND LAVATORIES**



Fig. 38247A

Porcelain Hospital Sink and Lavatory Combination with Left Hand Sink, Integral Instrument Tray with Drains and Right Hand Lavatory Basin with Integral Overflow supported on Two Porcelain Legs and Straps to Wall. Fitted with Two Sets Nickel-plated $\frac{1}{2}$ -inch Foot Action Supply Valves, Nickel-plated Goose-neck Spouts with Removable Rose Sprays, Nickel-plated, $1\frac{1}{2}$ -inch Pedal Action Wastes and Nickel-plated $1\frac{1}{2}$ -inch P Traps with Vents to Wall.

Sink, 24x16x6 Inches

Length Over All 60 inches

Tray 16x7 inches

Width 25 inches

Basin 14x17 inches

Height, Floor to Rim 35 inches

Price, as described.....	.....
" Lavatory only without Legs and Fittings.....	.....
" Porcelain Legs and Supports.....per pair	.....

All prices on porcelain ware are based on kiln run and extra charge will be made for special selection.

HOSPITAL SUPPLY AND WASTE VALVES

KNEE ACTION MIXING VALVES

H-2554

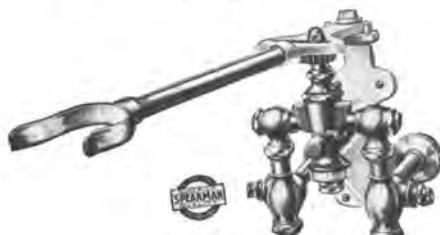


Fig. 37362A

Knee Action Mixing Valve to attach to Wall, having $\frac{1}{2}$ -inch Inlets to Wall with Lock-shield Controlling Valves, and $\frac{1}{2}$ -inch Outlet.

Price 100.00

Wall Bracket is malleable iron, white enameled. It is substantial and of sufficient size to permit it to be securely bolted to the wall. This makes it possible to use this valve under any type of lavatory, providing there is sufficient space between the legs to operate the lever.

ELBOW ACTION MIXOMETER VALVES

H-2551

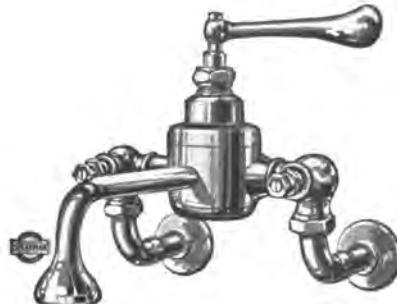


Fig. 37362B

Elbow Action Mixometer Valve with Lock-shield Controlling Valves and Elbow Couplings to Wall, Discharge Nozzle with Cast Brass Spray Regulator.

Center to Center of Inlet, 8 inches

Price 70.00

ELBOW ACTION SUPPLY FITTINGS

H-2553



Fig. 37362C

High Pattern Elbow-action Lavatory Supply Fitting with Hot and Cold Compression Valves, 12 inches Center to Center, connected to Globe Fitting with Nozzle and Kas-Bras Spray Regulator Brace and Wall Flange.

Price each 39.35

This fitting may be used on any lavatory having regular cock hole drillings fitted with pop-up waste, standing waste or plug and chain.

KNEE ACTION WASTE VALVES

H-2556



Fig. 37362D

Knee Action Waste to Attach to Wall with Pop-up Plug for Vitreous China or Enamelled Iron Lavatories having Overflow.

Price, $1\frac{1}{4}$ -inch Size 33.35

" $1\frac{1}{2}$ " " 40.00

" $1\frac{3}{4}$ " " for Lavatory

or Sink having no Overflow... 36.00

Price, $1\frac{1}{2}$ -inch Size for Lavatory or Sink having no Overflow... 42.65

HOSPITAL SUPPLY AND WASTE FITTINGS

PEDAL ACTION POP-UP WASTE
H-2500

Fig. 6973A

Nickel-plated Pop-up Waste with Foot Pedal Control for Patent Overflow Lavatory.

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
Price.....	each	32.65	38.00

H-2502**NOT ILLUSTRATED**

Nickel-plated Pop-up Waste with Foot Pedal Control for Lavatory or Sink without Overflow.

Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$
Price.....	each	37.35	42.65

WALL SUPPLY NOZZLE

H-2543



Fig. 6973B

Nickel-plated Wall Supply Nozzle with Kas-Bras Spray Regulator and $\frac{1}{2}$ -inch Female Inlet. For use over Surgical Lavatories or Sinks.

Price, as described.....each 6.65

GOOSENECK NOZZLE
H-2540

Fig. 6973C

Nickel-plated Gooseneck Supply Nozzle with Kas-Bras Spray, Regulator and $\frac{1}{4}$ -inch Tail Piece. Threaded for Iron Pipe. For Surgical Lavatories.

Price.....each 13.35

SUPPLY NOZZLE

H-2535



Fig. 6973D

Nickel-plated Raised Pattern Supply Nozzle with $\frac{1}{4}$ -inch Tail Piece Threaded for Iron Pipe. For Surgical Lavatories.

Price.....each 8.65

WASH BASINS

FOR METAL PLUG

EARTHENWARE ROUND BASINS

PATENT OVERFLOW



Fig. 3075A

Outside Diam..inches	12	13	14
Price.....each	2.50	2.50	2.50

EARTHENWARE OVAL BASINS

PATENT OVERFLOW



Fig. 3075B

Outside Dimensions ...in.	14x17	15x19
Price.....each	6.00	8.00

EARTHENWARE OVAL BASINS

NO OVERFLOW



Fig. 3075C

Outside Dimensions ...in.	14x17	15x19
Price.....each	5.00	7.00

Plugs and couplings for above basins
are extra.

ENAMELED IRON ROUND BASINS

PATENT OVERFLOW



Fig. 3075D

Outside Diam...inches	12	14	16
Price, Enam. Inside ea.	4.00	4.50	6.00
" " All Over. "	6.00	6.50	8.00

ENAMELED IRON OVAL BASINS

PATENT OVERFLOW



Fig. 3075E

Outside Dimensions...inches	14x17	15x19
Price, Enam. Inside...each	6.00	6.50
" " All Over. "	8.00	8.50

ENAMELED IRON OVAL BASINS

NO OVERFLOW



Fig. 3075F

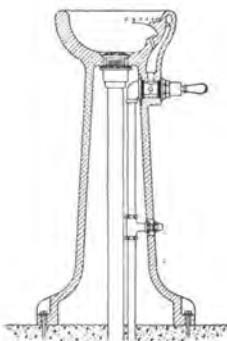
Outside Dimensions...inches	14x17	15x19
Price, Enam. Inside...each	5.00	6.00
" " All Over. "	7.00	8.00

Plugs and couplings for above basins
are extra.

DRINKING FOUNTAINS



Fig. 1078A



Vitreous China Pedestal Drinking Fountain with Raised Integral Side Stream Nozzle, Self-flushing Integral Sanitary Ledge. Nickel-plated Self-closing Valve with Oscillating Handle and Loose Key Stop, $\frac{3}{8}$ -inch Supply Pipe to Floor, Nickel-plated Strainer and Coupling for $1\frac{1}{4}$ -inch Iron Pipe Waste to Floor and China Bolt Caps.

Height.....	inches	30	36
Outside Diameter of Bowl.....	"	11 $\frac{1}{2}$	12
Diameter of Base.....	"	15	16
Price, as described.....			••••

The flushing rim washes the edge continually while the fountain is in use, which prevents the danger of contact with a dry surface. The ledge extends over the nozzle in such a manner as to prevent the contact of lips with the nozzle.

The construction of the supply chamber is such as to prevent the height of stream from being materially affected by a variation in pressure. The advantage of this feature being that the nozzle supplies a good size stream free from splashing at all times.

Vitreous China Bowl with Raised Integral Side Stream Nozzle, Self-flushing Integral Sanitary Ledge, Adjustable Combination Iron Pedestal and Waste Pipe for $1\frac{1}{4}$ -inch Iron Pipe, Nickel-plated Brass Self-closing Valve with Oscillating Handle, Loose Key Stop with Nickel-plated $\frac{3}{8}$ -inch Iron Pipe Size Supply Pipe to Floor, with Nickel-plated Brass Strainer. Height is adjustable.

Outside Diameter of Bowl.....	inches	12
Diameter of Base.....	"	10
Price, as described.....		••••



Fig. 1078B

VITREOUS CHINA DRINKING FOUNTAINS



Fig. 42129A

Vitreous China Pedestal Drinking Fountain with Integral Sanitary Hooded Slanting Stream Nozzle, Nickel-plated Self-closing Valve with Four-Ball Handle and Regulating Device and Heavy Supply and Waste Fitting Concealed Inside of Pedestal, Nickel-plated Heavy Floor Screws.

Bowl 12 inches

Height.....	inches	24	30	36
Price, as described				

Vitreous China Wall Drinking Fountain with Integral Hooded Sanitary Slanting Stream Nozzle and Integral Trap and Drain Screw, Nickel-plated Self-closing Valve with Four-Ball Handle and Regulating Device, Nickel-plated Supply Pipe to Wall and Flanged Waste Connection.

Width $10\frac{1}{2}$ inches Height $15\frac{1}{2}$ inches
Front to Wall 13 inches

Price, as described



Fig. 42129B

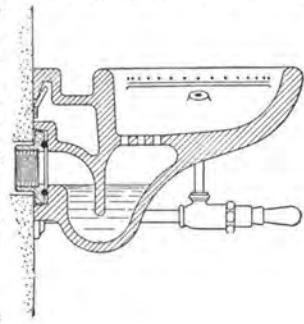
DRINKING FOUNTAINS



Fig. 1088A

Pipe with Bolts, Gasket and China Bolt Caps.

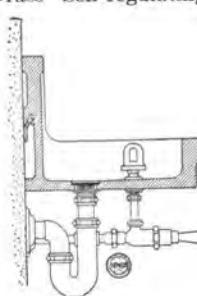
Vitreous China Drinking Fountain with Integral Trap to Wall and Raised Integral Side Stream Nozzle, Self-flushing Integral Sanitary Ledge, Concealed Adjustable Clip Hanger, with Nickel-plated Brass Self-closing Valve with Oscillating Handle, Loose Key Stop with Nickel-plated $\frac{3}{8}$ -inch Iron Pipe Size Supply Pipe to Wall and China Wall Escutcheon, Rough Brass Outlet Connection threaded for 1½-inch Iron



Wall to Front of Fountain, 14 $\frac{3}{4}$ inches
Outside Diameter of Bowl, 11 $\frac{1}{2}$ inches

Price, as described

Vitreous China Drinking Fountain on Concealed Bar Hanger, Nickel-plated Brass Self-regulating Bubbler, Nickel-plated Brass Self-closing Valve with Oscillating Handle, Nickel-plated $\frac{3}{8}$ -inch Iron Pipe Size Supply Pipe to Wall with Loose Key Stop, Nickel-plated Brass Strainer and Coupling, 1¼-inch Nickel-plated Cast Brass P Trap and China Wall Escutcheons.



Size of Fountain, 18x14 $\frac{1}{2}$ inches
Height of Back, 7 inches

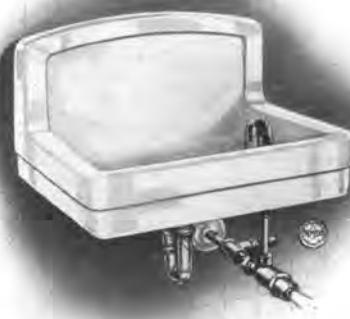


Fig. 1088B

Price, as described

ENAMELED IRON DRINKING FOUNTAINS



Fig. 35362A



Fig. 35362B

FIG. 35362A

Enameled Iron Drinking Fountain with Enameled Iron Pedestal, with China Guard Bubbler, Foot-operated Self-closing Valve in Floor Plate, Loose Key Volume Regulator and Concealed Galvanized Supply and Waste Pipes to Floor.

Height.....	inches	30	36
Price, as described .....		...	...

FIG. 35362B

Enameled Iron Drinking Fountain with Enameled Iron Pedestal, with China Guard Bubbler, Self-closing China Lever Handle Controlling Valve, Loose Key Volume Regulator and Concealed Galvanized Supply and Waste Pipes to Floor.

Height.....	inches	27	30	36
Price, as described .....		...	...	...

ENAMELED IRON DRINKING FOUNTAINS

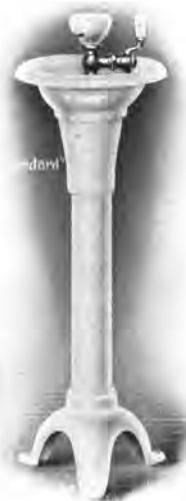


Fig. 2737A



Fig. 2737B

FIG. 2737A

Enameled Iron Drinking Fountain with Enameled Bowl, White Painted Standard and Base, China Guard Bubbler, Self-closing China Lever Handle Controlling Valve, Loose Key Volume Regulator, and Concealed Galvanized Supply and Waste Pipe to Floor.

Diameter of Bowl, Outside 11 inches; Inside 8 inches

Height.....	inches	24	30	36
Price, as described, Bowl Enameled All Over .....	.....	.....	.....	.....

FIG. 2737B

Enameled Iron Drinking Fountain with Enameled Bowl, White Painted Standard and Base, China Guard Bubbler, Loose Key Volume Regulator, $\frac{1}{2}$ -inch Nickel-plated Ball-bearing Self-closing Lever Handle Controlling Valve and Exposed Galvanized Supply and Concealed Waste Pipe to Floor.

Diameter of Bowl, Outside 11 inches; Inside 8 inches

Height.....	inches	24	30	36
Price, as described, Bowl Enameled All Over .....	.....	.....	.....	.....

ENAMELED IRON DRINKING FOUNTAINS



Fig. 4280A



Fig. 4280B

FIG. 4280A

Enameled Iron Alcove Drinking Fountain with Nickel-plated Ball-bearing, Self-closing Bibb, Open Strainer and Waste Connection to Wall.

Height 22 inches. Recess in Wall $3\frac{1}{2}$ inches
Width $12\frac{3}{4}$ inches Front to Back $10\frac{1}{2}$ inches

Price, as described.....

FIG. 4280B

Enameled Iron Flat Back Drinking Fountain with Concealed Wall Hanger, Nickel-plated Ball-bearing Self-closing Bibb, Open Strainer and Waste Connection to Wall.

Height 22 inches Width $12\frac{1}{2}$ inches
Front to Back 9 inches

Price, as described.....

FIG. 4280C

Enameled Iron Flat Back Drinking Fountain on Concealed Hanger, with China Guard Bubbler with Loose Key Volume Regulator Operated by China Index Push Button, also Nickel-plated Spout with Loose Key Volume Regulator and China Index Push Button, $\frac{3}{8}$ -inch Nickel-plated Supply Pipe and $1\frac{1}{4}$ -inch Adjustable P Trap.

Height $16\frac{3}{4}$ inches Width $12\frac{1}{2}$ inches
Front to Back $14\frac{1}{2}$ inches

Price, as described.....



Fig. 4280C

**BUBBLING DRINKING FOUNTAINS
WITH SELF-CLOSING PUSH BUTTON**

No. A-5



Fig. 3482A

No. A-4



Fig. 3482B

No. A-5—Measuring 6 $\frac{1}{8}$ Inches from Center of Bubble to End of Shank; Shank Threaded $\frac{3}{8}$ -inch Iron Pipe Female. Price, each.....

No. A-4—Measuring 3 $\frac{7}{8}$ Inches from Center of Bubble to End of Shank; Shank Threaded $\frac{1}{2}$ -inch Iron Pipe Female. Price, each.....

No. A-3



Fig. 3482C

No. A-2



Fig. 3482D

No. A-3—Measuring 3 $\frac{7}{8}$ Inches from Center of Bubble to End of Shank; Shank Threaded $\frac{1}{2}$ -inch Iron Pipe Female. Price, each.....

No. A-2—Measuring 5 $\frac{3}{4}$ Inches from Top of Catch Basin to End of Shank; Shank Threaded $\frac{1}{2}$ -inch Iron Pipe Female. Price, each.....

These Fountains can be furnished with Metal Basin instead of Porcelain, at same price. Porcelain Basins will be sent, unless otherwise ordered.

WATER COOLERS AND DRINKING FOUNTAINS

No. 570 WATER COOLERS



Fig. 30952A

ulated cork in the side walls and pressed cork board in the bottom and cover of cooler.

Bowl equipped with 2-stream converging side stream projector. Supply pipe furnished with self-closing valve and regulator. Supply and waste pipes concealed between walls of cooler. Cover equipped with air tight gasket and locking device to prevent removal of ice.

Size ice chamber, 19 in. O. D., 19 in high.

No. 520 PEDESTAL DRINKING FOUNTAINS

FOUNTAINS

Mill Type Pedestal Fountain with heavy vitreous china bowl and 4-stream converging projector. Sanitary and convenient, durable, for use in steel mills, foundries, etc.

Made of heavy cast iron top and base; with 4-inch outside diameter Steel tubing standard; enclosed galvanized supply and waste pipes. Self - closing valve. Made in 3 heights, 36, 39 and 42 inches. Diameter of receptor, 6 inches. Diameter adjustable base, 16½ inches.

Prices upon application.

Designed to connect to pressure lines and are so constructed that the drinking water does not come in contact with either the ice or the melted ice water, but is circulated through a brass coil which is tinned both inside and out.

Cover, top and base made of cast iron. Body, tank and coil guard made of galvanized sheet iron. Insulation, regranulated cork in the side walls and pressed cork board in the bottom and cover of cooler.

Bowl equipped with 2-stream converging side stream projector. Supply pipe furnished with self-closing valve and regulator. Supply and waste pipes concealed between walls of cooler. Cover equipped with air tight gasket and locking device to prevent removal of ice.

Size ice chamber, 19 in. O. D., 19 in high.



Fig. 30952B

No. 547 PEDESTAL DRINKING

FOUNTAINS



Fig. 30952C

Vitreous china bowl self-closing valve with volume regulator. 4-stream angle jet projector. 2½-inch outside diameter steel tube standard with cast iron closed base. Galvanized supply and waste pipes concealed within standard, connections to be made below floor line. Finish, battleship gray.

Dimensions: Receptor, 9½ inches outside diameter; base, 9½ inches diameter; supply and waste connections 6½ inches below floor line; height, 36 and 39 inches.

548 pedestal is the same construction as the 547, but has open base for installing above floor line.

No. 567 PEDESTAL DRINKING FOUNTAINS

Heavy cast iron vitreous enamel bowl with ventilated tripod guard cast integral; 2½ inches outside diameter tubing standard and cast iron closed base; bowl furnished with 2-stream converging side stream projector and self-closing valve with volume regulator; supply $\frac{3}{8}$ -inch; waste, 1 inch.

Furnished in two heights, 36 and 39 inches.



Fig. 30952D

No. 568 PEDESTAL FOUNTAINS

Same as 567 but has open base.

Prices upon application.

PURITAN DRINKING FOUNTAINS

No. 566 CANTONMENT WALL
FOUNTAINS

Fig. 30940A

Made of cast iron, vitreous enameled all over. Nickel-plated self-closing stop, loose key volume regulator, nickel-plated brass strainer and two-stream mound building projector.

Receptor, $7\frac{1}{2} \times 9\frac{1}{2}$ inches; projection from wall, $11\frac{1}{2}$ inches; to center of drinking mound, 8 inches; supply, $\frac{3}{8}$ -inch iron pipe; waste, 1-inch iron pipe.

Price, as described each
" with $1\frac{1}{4}$ -inch Brass Trap each

No. 575 FOUNTAIN HEADS



Fig. 30940B

Fountain head cast iron, vitreous enameled. Bowl equipped with 2-stream converging mound builder projector. Furnished with self-closing valve with volume regulator.

Price, Complete each
" without Self-closing Valve with Regulator each

No. 562 FOUNTAIN HEADS



Fig. 30940C

Vitreous china head with nickel-plated brass base and projector, stream converging side stream projector. An interference is set up in the stream which retards the movement of water at apex of arc. Equipped with loose key volume regulator.

Price each
" with Lever Handle Self-closing Valve with Offset each

No. 501 FOUNTAIN HEADS



Fig. 30940D

Nickel-plated spun brass or vitreous china bowl; self-closing push button valve; volume regulator; 4-stream angle jet projector. Length over all, $4\frac{1}{2}$ inches; height, $4\frac{3}{4}$ inches; diameter bowl, 4 inches. Supply tapped $\frac{1}{2}$ -inch I.P.; outlet, $\frac{3}{8}$ -inch, I.P.

Price each
" with 6-inch N. P. Brass Bowl and 4-inch Guard Ring each

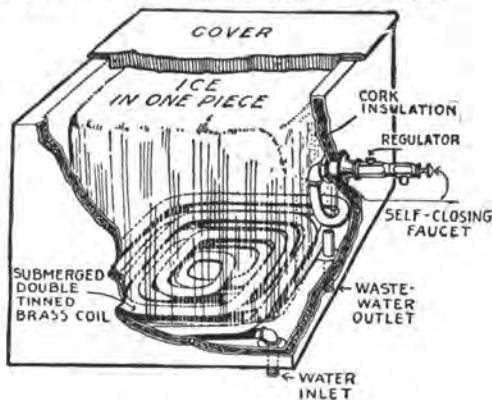
ALLEN INSTANTANEOUS WATER COOLERS

SQUARE TYPE



Fig. 30600A

SECTIONAL VIEW SHOWING CONSTRUCTION



SQUARE TYPE

This shape is most economical for ice and floor space used. Built to stand rough factory use. Sanitary in every particular.

Consists of insulated cooler with tray and legs attached as shown, all sizes of cooler can be furnished with self-closing N.P. brass faucets with regulator or can furnish with any style of bubbler.

Price, No. 50BDF, for 50 Pounds Ice; Size Tank, 16x16x16 Inches; Height Over

All 38 Inches.....each 43.00

Price, No. 100BDF, for 100 Pounds Ice; Size Tank, 16x16x26 Inches; Height Over

All, 38 Inches.....each 50.00

Price, Faucets for All Size Coolers.....each 2.50

" Bubbler Porcelain Cups for All Size Coolers as Shown.....each 9.00

NO. 200 COIL COOLERS

Holds 200 pounds of ice. Heavy galvanized iron double walls with cork insulation. Waste outlet arranged so coil is submerged in melted ice water, threaded for $\frac{1}{2}$ -inch I.P., coil is 60 feet long.

CONSTRUCTION

Insulation granulated cork. Double walls of heavy galvanized iron. Finished regularly in gray enamel.

Water inlet threaded for $\frac{3}{8}$ -inch iron pipe. Waste outlet threaded for $\frac{1}{2}$ -inch iron pipe. Shape of cooler permits ice being used in one piece, so that it does not melt as fast as when it is chopped up. The drain outlet is arranged so the coil is submerged in ice cold water. Unless otherwise specified all coolers are fitted with a 20-foot brass coil.

Price, Size, 25x30x24 Inches, Including Legs.....each 75.00



Fig. 30600B

WATER CLOSETS

THINGS YOU OUGHT TO KNOW BEFORE SELECTING A WATER CLOSET

There are these three principal types of water closets, which have variations. The siphon hopper, reverse trap and siphon jet. If you will study the views of these different closets, you will see that they are shaped unalike.

SYPHON HOPPER OR WASHDOWN

Sectional View of Siphon Hopper Showing Water Line



This type of closet may be readily identified from other closets owing to the trapway or outlet passage running towards the front of closet, which results in the trapway projecting slightly forward of the front of bowl.

The siphon action in this type depends upon the rush of water from the flushing rim raising the level in the bowl sufficiently to force the water over the dam or trapway. This water, being retarded by the contortions of the outlet passage, fills the down leg and starts the siphon.

The design of this bowl gives an ample depth of water seal to guard against sewer gas and a large water surface, which reduces the fouling surface in bowl. It has a strong positive action, which gives a thorough and complete flushing when operated.

Top View of Siphon Action Hopper Showing Water Surface



Sectional View of Reverse Trap Showing Water Line



REVERSE TRAP WASHDOWN

The principal difference in the construction of the reverse action type of closet and that of the siphon action is that the trapway or outlet passage-way runs in just the reverse direction of the bowl.

The action of this bowl is accomplished in the same manner as that of the siphon action closet. The outlet in the bowl proper being in the center not only increases the water surface and depth of water seal, but locates the water surface in a more effective position. This also reduces the quantity of water in the up leg of the siphon which results in a quicker and stronger action.

The smaller soiling surface in bowl, deeper water seal, quicker and stronger action, are the features which make this type of closet a more desirable installation than that of the regular siphon action closet.

Top View of Reverse Trap Showing Water Surface



SYPHON JET

Sectional View of Siphon Jet Showing Water Line



The reverse siphon action is sometimes mistaken for the siphon jet. The siphon jet is of greater length than the reverse siphon action and is made with top supply. This brings the water level higher up, resulting in a deeper seal and larger water surface, completely covering the surface of bowl. Note the larger passage-way, meaning less liability to clog through passage of foreign substances. The instantaneous flushing peculiar to siphon jet is acquired by the direct stream of water from the tank being forced up the outlet passage at the moment of release of flushing lever.

This type of closet has a stronger, quicker and quieter action, larger water surface, deeper water seal and larger passage-way than any other type of closet.

Top View of Siphon Jet Showing Water Surface



The siphon jet is by far the most sanitary fixture. It flushes almost instantly, is much less likely to clog because of its powerful action and larger outlet.

VITREOUS CHINA CLOSET BOWLS

SYPHON WASH DOWN
REAR OUTLET

Fig. 35360A

Vitreous China Syphon Wash Down Bowl with Rear Outlet and 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ or 2-inch Back Supply Spud.

Price..... 12.50

This Bowl furnished to Rough-in either 12 or 14 inches. Also made with Center Outlet.

MADISON REVERSE TRAP
SYPHON BOWLSYPHON WASH DOWN
EXTRA EXTENDED OUTLET

Fig. 35360C

Vitreous China Syphon Wash Down Bowl with Extra Extended Rear Outlet and 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ or 2-inch Back Supply Spud.

Price..... 16.50

To meet close roughing in measurements.

MADERA SYPHON JET



Fig. 35360B

Vitreous China Reverse Trap Syphon Action Bowl with Floor Outlet and 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ or 2-inch Back Supply Spud.

Price..... 14.25

For Extended Front Lip, add... 2.00



Fig. 35360D

Vitreous China Syphon Jet Bowl with Floor Outlet and Top Inlet with 1 $\frac{1}{2}$ or 2-inch Supply Spud.

Price..... 26.00

For Extended Front Lip, add... 2.00

" Raised Rear Vent, add... 12.50

WATER CLOSETS

SYPHON JET

ARISTON



Fig. 39257A

Vitreous China Syphon Jet Bowl with Extended Front Lip, Cut-back Rim and Extended Top Inlet, Special Open Front and Back White Celluloid Covered Seat, Vitreous China Straight Front Tank with China Underpull Lever, Maddock's Improved Flush Valve with 1 $\frac{1}{4}$ -inch Overflow Tube, High Pressure Compound Lever Ball Cock with Nickel-plated Supply Pipe and China Handle Stop Valve, Tinned Copper Float, Nickel-plated Brass Flush Connection with One Piece China Pipe Cover, Floor Bolts with China Caps.

Price, as Described.....

Can also be furnished with concealed back supply pipe and stop valve.
Height of bowl 14 $\frac{1}{2}$ inches.

This Ariston Closet represents the embodiment of those sanitary features so essential to complete sanitation. The extended front lip, cut-back rim, narrow flush rim, large water surface, trap opening conforming with United States Government specifications, and silent action are features not found combined in any other closet. Packed complete in one crate.

WATER CLOSETS

SYPHON JET

ARISTON



Fig. 39258A

This Ariston design has all the desirable sanitary features of the combination on the preceding page and in addition has a raised rear vent, ventilating not only the closet, but the entire room as well.

Vitreous China Syphon Jet Bowl with Extended Front Lip and Cut-back Rim, Raised Rear Vent, Special Open Back White Celluloid Seat and Cover, Vitreous China Straight Front Tank with Elevated High Pressure Compound Lever Ball Cock, with Tinned Copper Float, Heavy Nickel-plated Brass Supply Pipe to Wall with China Handle Stop Valve, Maddock Improved Flush Valve with 1 $\frac{1}{4}$ -inch Overflow Tube, China Handle Underpull Flush Lever, Nickel-plated Brass Flush Connection with One Piece China Flush Pipe Cover, Vitreous Vent Collar and Floor Bolts with China Caps.

Price, as Described

Can also be furnished with concealed back tank supply.

WATER CLOSETS

MADERA-SILENT



Fig. 7223A

Vitreous China Silent Action Syphon Jet Bowl with Extended Top Inlet and Floor Outlet, Special Finish White Celluloid Covered Seat and Cover with White Finish Post Hinge, 7½-gallon Vitreous China Round Cornered Tank with Underpull Flush Lever with China Handle, High Pressure Compound Lever Ball Cock with Tinned Copper Float, Maddock Improved Flush Valve with 1¼-inch Overflow Tube, ¾-inch Nickel-plated Iron Pipe Size Seamless Supply Pipe to Wall with China Handle Stop Valve, Brass Flush Connection with Vitreous China One Piece Cover, Brass Floor Screws and China Bolt Caps.

Price, as described.....
" with Imitation Mahogany Seat and Cover.....

Height, 15 inches; opening of bowl, 13 inches; water surface, 13x10 inches, and 3-inch water seal.

Can be furnished with top side double acting flush lever with china handle and escutcheon.

This combination is only sold complete including bowl, tank with fittings, seat and cover, flush pipe cover and bolt caps, packed complete in one crate.

WATER CLOSETS

SYPHON JET

SI-WEL-CLO—ALL-WHITE



Fig. 33139A

Vitreous China Noiseless Syphon Jet Bowl, Special Finish White Seat and Cover with Concealed Bar Hinge and China Covered Seat Posts, Vitreous China Straight Front Tank with Faultless Brass Flush Valve, Rough Plated All Over and Bottom China Pull, Hy-Lo Noiseless Ball Cock with Stop through Back of Tank, Concealed Supports, Concealed Flush Connection with China Casing and China Bolt Caps.

Price, as described.....
" with Mahogany Seat.....

The extremely quiet operation of the Si-wel-clo bowl overcomes a source of daily annoyance to the house-owner, especially when guests are present. The flush valve in the tank operates quietly with Buoyant Copper float and outlet plug with leather disc. The silent Hy-Lo ball cock eliminates that noisy gurgle heard when the tank is discharging or refilling.

WATER CLOSETS

SYPHON JET
MADERA

Fig. 13853A

Vitreous China Silent Action Syphon Jet Bowl, with Extended Inlet, White Celluloid-covered Seat and Cover with White Seat Posts, Vitreous China Straight Front Tank with Round Corners, Elevated High Pressure Compound Lever Ball-Cock, Rubber Ball Flush Valve, Double-acting Trip Lever with China Handle, Nickel-plated $\frac{3}{8}$ -inch Iron Pipe Size Supply Pipe to Wall with China Handle Stop Valve, Nickel-plated Flush Connection, White Vitreous China Flush Pipe Cover and Floor Bolts with China Caps.

Price, as described . . . . .	.....
If with Birch Mahogany Seat, deduct . . . . .	.....
" without Stop in Supply Pipe deduct . . . . .	.....

WATER CLOSETS**SYPHON JET****MADERA—EXTENDED LIP****Fig. 14596A**

Vitreous China Syphon Jet Bowl with Extended Front Lip and Extended Top Inlet, Mahogany Finish Open Front Saddle Seat, no Cover, with Nickel-plated Brass Bar Hinge, Vitreous China Tank with Elevated High Pressure Ball Cock, Maddock Improved Flush Valve, Trip Lever with China Handle, Nickel-plated Supply Pipe to Wall with China Cross Handle Stop, Flush Connection with China Cover, Floor Bolts and China Bolt Caps.

Price, as described.....

This bowl has large water surface, 2½-inch trap opening and 3-inch water seal.

WATER CLOSETS

SYPHON WITH JET

MADURO



Fig. 14619A

Vitreous China Syphon Bowl with Concealed Twin Jet, Birch-mahogany Seat and Cover with Heavy Nickel-plated Brass Bar Hinge, Vitreous China Straight Front Tank with Elevated High Pressure Ball Cock, Rubber Ball Flush Valve, China Lever, Nickel-plated Supply Pipe, Nickel-plated Flush Connection, Floor Bolts and China Bolt Caps.

Price, as described.....

WATER CLOSETS**REVERSE TRAP SYPHON WASH DOWN****THU-JET**

Fig. 14594A

Vitreous China Reverse Trap Syphon Wash Down Bowl, Oval Oak Seat and Cover with Nickel-plated Brass Bar Hinge, Vitreous China Straight Front Tank with Elevated High Pressure Ball Cock, Rubber Ball Flush Valve, with China Lever, N. P. Supply Pipe, Nickel-plated Flush Connection, Floor Bolts and China Bolt Caps.

Price, as described.....

If with Jet in Bowl, add.....

WATER CLOSETS
SYPHON WASH DOWN
MADERNO



Fig. 33558A

Vitreous China Syphon Action Wash Down Bowl with Back Inlet, Extended Heel, Sanitary Rim, Birch Mahogany Saddle Seat and Cover with Concealed Post Hinges, Vitreous China 6½-gallon Tank with Round Corners, Double-acting Flush Lever with China Handle. Elevated High Pressure Compound Ball Cock, Tinned Copper Float, Rubber Ball Flush Valve, $\frac{3}{8}$ -inch Nickel-plated Brass Supply Pipe, China Escutcheons, Nickel-plated Flush Connection and China Cap Bolts.

Price, as described
 If with White Seat and Cover, add

This bowl is 15 inches high with a 13-inch opening and a water surface of 7x7 inches, and a 3-inch water seal. It has a sanitary rim which has a 1¼-inch downward projection inside of bowl. The bowl roughs in at 12 inches.

This combination is furnished complete Bowl, Tank and Seat packed in one strong crate which greatly facilitates handling.



WATER CLOSETS

SYPHON WASH DOWN

MADORIC

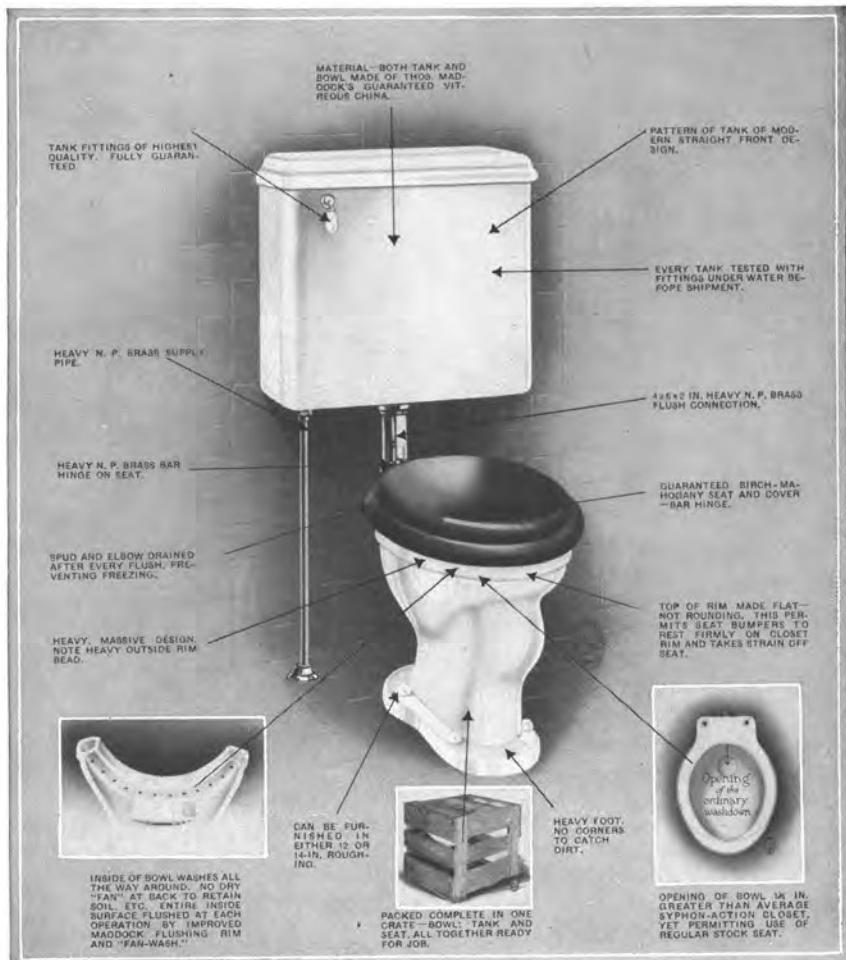


Fig. 588A

Vitreous China Syphon Action Washdown Bowl with Back Inlet, Golden Oak or Birch Mahogany Seat and Cover with Nickel-plated Heavy Brass Hinge, Vitreous China Round Corner 6½-gallon Low Down Tank fitted with Double Acting Topside Lever with China Handle, Semi-elevated Compound Lever High Pressure Ball Cock, Standard Pattern Flush Valve, $\frac{3}{8}$ -inch Nickel-plated Brass Supply Pipe and Nickel-plated Brass Elbow Connection. Nickel-plated Floor Screws and China Bolt Caps.
Price, as described.....

WATER CLOSETS

SYPHON WASH DOWN

THUCO—No. 700



Fig. 1173A

Vitreous Syphon Wash Down Water Closet with Syphon Wash Down Bowl, Vitreous China Straight Front Tank, Operating Lever with China Handle, Rubber Ball Flush Valve, Compound Lever Elevated High Pressure Ball Cock, Nickel-plated Flush Connection, $\frac{3}{8}$ -inch Nickel-plated Supply Pipe and Nickel-plated Escutcheon, and Coupling Nut, Birch Mahogany Seat and Cover with Nickel-plated Heavy Cast Brass Hinges, Nickel-plated Floor Screws and Washers.

Woodwork: Seat can be furnished Natural or Golden Oak.

Price, as described.....	.....
If with Stop Valve in Supply Pipe, add.....	.....
" " White Semi-saddle Seat and Cover, add.....	.....

WATER CLOSETS**SYPHON WASH DOWN****VITRO No. 6****Fig. 41611A**

Vitreous China Syphon Wash Down Bowl with 1 $\frac{1}{4}$ -inch White Finish Seat and Cover with Nickel-plated Cast Brass Bar Hinge, No. 6W Vitro White Round Front Tank with China Trip Lever, High Pressure Ball Cock, Rubber Ball Flush Valve, Nickel-plated Supply Pipe, Nickel-plated Ell Flush Connection,

Price, Complete as described

If with Wheel Handle Stop in Supply Pipe, add

WATER CLOSETS

SYPHON JET

AUTOMATIC SEAT-ACTUATED



Fig. 17358A

Vitreous China Syphon Jet Bowl with Extended Lip, Oak Self-raising Open Front Seat with Nickel-plated Brass Post Hinges, Nickel-plated Brass Re-enforcing Plate, and No. 5 Self-controlled Counterweight, Enameled In and Out Iron Tank with High Pressure Ball Cock, Positive Seat-actuated Flushing Device, Nickel-plated Iron Pipe Size Supply Pipe, Nickel-plated Flush Connection, Nickel-plated Floor Bolts and Washers.

Price, as described.....	.....
If with Round-cornered Oak Tank, deduct.....	.....
" " Galvanized Iron Tank, deduct.....	.....
" Tank is to be Concealed Behind Partition, add.....	.....
Floor flange and gasket extra.	

WATER CLOSETS**SYPHON WASH DOWN****AUTOMATIC SEAT-ACTUATED**

Fig. 38330A

Vitreous China Syphon Wash Down Bowl, Oak Self-raising Seat with Nickel-plated Post Hinges and Self-controlled Counterweight, Nickel-plated Cast Brass Re-enforcing Plate with Rubber Bumpers, Enamelled In and Out Low Down Tank, Nickel-plated Flush Connection, Positive Seat-actuated Flushing Device, Nickel-plated Supply Pipe, Floor Screws and Washers.

Price as described

If with Enamelled Inside Tank, deduct . . . . .	.....
" " Oak Wood Tank, deduct . . . . .	.....
" " Vitreous China Tank, add . . . . .	.....
" " Galvanized Iron Tank, add . . . . .	.....

WATER CLOSETS

ARISTON



Fig. 7003A

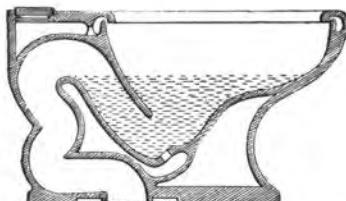
Ariston Syphon Jet Closet Bowl with Side Inlet, Extended Front Lip and Cut Back Sanitary Flat Rim, Flushed all the Way Around, Whale-bone-ite Open Front and Back Seat with Nickel-plated Cast Brass Bar Hinge, Nickel-plated Royal Flush Valve with Back Inlet, 1-inch Ground Joint Union Angle Stop, China Oscillating Handle and Nickel-plated or China Wall and Spud Flanges, Floor Bolts and China Bolt Caps.

Price, as described

The valve cannot be held open to waste water and delivers a uniform, predetermined flush regardless of manner in which operated. It does not require regulating for any variation in pressure between 5 and 100 pounds.

Ariston Syphon Jet Closet Bowl with Top Inlet, Extended Front Lip and Cut Back Sanitary Flat Rim, Flushed all the Way Around, Whale-bone-ite Open Front and Back Seat with Nickel-plated Cast Brass Bar Hinge, Nickel-plated Royal Flush Valve with Side Inlet, 1-inch Ground Joint Union Angle Stop, China Oscillating Handle and Nickel-plated or China Wall and Spud Flanges, Floor Bolts and China Bolt Caps.

Price, as described



The water surface of this bowl is large, 14x10 inches. Has large water way through trap.



Fig. 7003B

WATER CLOSETS



Fig. 5910A

**SYPHON JET
SENECA No. 1**

Vitreous China Wall Hung Syphon Jet Bowl with Extended Lip, supported on Type S Concealed Wall Carrier, Open Front and Back Whale-bone-ite Saddle Seat, Nickel-plated Cast Brass Bar Hinge, Concealed Royal Flush Valve with China Oscillating Handle and Nickel-plated Escutcheon, China Bolt Caps.

Price, as described

**SYPHON JET
SENECA No. 2**

Vitreous China Wall Hung Syphon Jet Bowl with Extended Lip and Side Supply, supported on Type S Concealed Wall Carrier, Open Front and Back Whale-bone-ite Saddle Seat, Nickel-plated Cast Brass Bar Hinge, Nickel-plated Royal Flush Valve with Back Inlet, 1-inch Ground Joint Union Straight Stop and China Oscillating Handle, Nickel-plated Flush Pipe and Escutcheon, China Bolt Caps.

Price, as described



Fig. 5910B

The concealed wall carrier, type S, as shown here is built into the floor and wall and carries the closet free from the floor without placing any part of the weight on the wall structure.

It will be seen that the entire weight of the closet and user is transferred through the carrier plate in the floor without causing any strain whatever on the pipe connections. This makes possible a flexible connection, regulation lead bend, between the closet and soil pipe, which eliminates all possibility of strain on the closet through expansion and contraction of piping. The carrier plate to which the closet is bolted being supported on two uprights permits ample adjustment for setting the closet any desired height from the floor.



WATER CLOSETS

B. O. T. SYPHON WITH ROYAL FLUSH VALVE

SENECA No. 3



Fig. 7844A

Reverse Trap Vitreous China Syphon Bowl, No. 37 Nickel-plated Automatic Seat-operating Royal Flush Valve, with Nickel-plated Cast Brass Adjustable Bar Hinge and Polished Oak Seat, Floor Screws and Washers.

Price, as described.....	.....
If with Ball Weights to hold Seat in Vertical Position when not in use, add.....	.....
" with Raised Rear Vent, add.....	.....
" " " Front Bowl and Open Front Seat, add.....	.....
" " Sanitary Extended Lip Bowl and 1½-inch Extended Lip Horseshoe Seat (less Cover), with Nickel-plated Extra Heavy Horseshoe Bar Hinges, add.....	.....
" with Gate Valve, add.....	.....

WATER CLOSETS

JETTED WASH DOWN SEAT ACTION



Fig. 10668A

Bowlus Extra Heavy Special Noiseless Seat-operating Wash Down Bowl with Jet, Jewel Automatic Flush Valve, Polished Golden Oak Closed Front Seat with Iron Reinforcements Inside of Wood and Nickel-plated Hinge, Galvanized and Bronzed Iron Closed Pressure Tank.

Price, No. 54 with Low Down Tank and Golden Oak Seat, as described
" " 60 " Elevated Tank, Galvanized Flush Pipe and Golden Oak Seat.

Supply pipe and stop not included in these prices.

The Jewel Flush Valve has no springs, no metal-to-metal or close fitting parts, thereby rendering it most simple and durable. This valve will connect to and operate successfully with any wash down bowl.

Extra for Open Front, Mahogany Finish, and White Enameling Finished Seats ..
" " Bowlus Special Compression Stop Valves for Supply
" " Nickel-plated Brass Flush Pipe with Special Attachments
" " White Enameling Tank
.....

VOGEL FROST-PROOF CLOSETS



Fig. 10019A

COMBINATION No. 1

These closets are simple, strong and durable and require no pit. Are quickly and economically installed, as the valve may be covered with earth as soon as connection with the water supply is made. Valve parts can be easily removed from above the floor. Bowls have special design one-half roll enameled rims.

Depressing the seat raises the rod, allowing the tank to fill, after which no more water enters until the closet is again used. Releasing the seat allows a strong flush direct from tank to hopper, after which the water in valve casing passes down through waste valve (below frost line) into the sewer, leaving the entire fixture empty. By means of the pressure tank an ample flush is secured without unnecessary waste of water.

Price, Enameled Inside, Tall Oval Enamelled Roll Flush Rim Hopper with Reinforced Hardwood Seat, 8x24-inch Galvanized Pressure Tank, Supply and Flush Valves Assembled with 3-foot 3-inch Valve Rod and Casing each
 If Hopper Enameled Inside and Outside, add each
 " with Self-raising Seat, add "
 If with Earthenware Bowl, add "

COMBINATION No. 2

This contains but one washer and flushes while in use, after which no water remains in the fixture or casing.

Price, Enameled Inside Hopper with Brass Fan Wash, Enameled Roll Flush Rim, Hardwood Seat, Valve Assembled with 3-foot 3-inch Valve Rod and Casing each
 If Hopper Enameled Inside and Outside, add each
 " with Self-raising Seat, add "

Combinations with hoppers having 4-inch outlets for calking into bell end of soil pipe, furnished at same price. Flanged hoppers will be furnished unless otherwise ordered.



Fig. 10019B

CLOSET-TANKS

VITREOUS CHINA



Fig. 5926A

Vitreous China Straight Front Tank with China Lever, Elevated High Pressure Compound Lever Ball Cock, Solderless Copper Float, Rubber Ball Flush Valve; Nickel-plated Supply Pipe and Flush Connection. Price as described, 6-gallon..... 30.00
 " " " 8 " 40.00

LOW WOOD TANKS



Fig. 5926B

Wood Tank with Copper Lining, with Elevated High-pressure Ball Cock, Douglas Pattern Flush Valve with Double-acting China Handle Top Lever, Nickel-plated Offset or Elbow Flush Connection, Nickel-plated Supply Pipe and Escutcheon. Woodwork Natural or Golden Oak or Mahogany Finish. Price..... 18.00

VITRO No. 6



Fig. 5926C

Vitro Round Front White Tank with China Handle Double-acting Flushing Lever, High Pressure Compound Lever Ball Cock, Rubber Ball Flush Valve, Nickel-plated Supply Pipe and Flush Connection.

Price..... each 22.00

HIGH WOOD TANKS



Fig. 5926D

Size..... in. 17x8x10 20x9x10
 Price Oak or Birch
 Mahogany.... each 12.00 15.00

CLOSET TANKS

ENAMELED IRON



Fig. 8772A



Fig. 8772B

Fig. 8772A—Enameled In and Out Round Front, Flat Top Tank with China Lever Elevated High Pressure Ball Cock, Douglas Pattern Flush Valve, Nickel-plated Supply Pipe and Flush Connection.

No. 1, 21 inches Wide, 17 inches High, 8 inches Deep	18.00
" 2, 22 " " 18 $\frac{1}{4}$ " 8 " "	21.50
<hr/>	
No. 1, 17 $\frac{1}{2}$ x9x10 inches.....	12.75
" 2, 21x11x10 "	16.00

Also furnished with Top Supply.



Fig. 8772C

URINAL TANKS

Enameled In and Out Urinal Tank with Automatic Bottom Supply Fittings.

1 -gallon, 10 x 6x 8 inches.....	11.25
2 $\frac{1}{2}$ " 14 x 7x10 "	11.75
5 " 17 $\frac{1}{2}$ x 9x10 "	12.75
7 $\frac{1}{2}$ " 21 x11x10 "	16.00

Furnished also with Top Supply Fittings.

Pull Fittings furnished at same price.

VITREOUS CHINA AND OAK URINAL TANKS

Complete with Automatic Top Supply Fittings

Capacity ... gallons	1	2	3	4	5	6	8	10	15	20
Price, Vitreous China	14.50	17.50	18.50	19.00	19.00	19.50	.....	.....	.....	.....
" Oak	9.00	9.50	10.50	.....	12.00	.....	15.00	22.50	27.00	36.00

Furnished also with Pull Fittings or Bottom Supply Fittings, at same price.

TRY-ME BALL COCKS AND REGULATORS

TRY-ME BALL COCKS



Fig. 18066A

TRY-ME PRESSURE REGULATORS



Fig. 18066B

The Try-Me Ball Cock meets the demand for a ball cock that is simple in construction, non-leakable, effective in operation, and adjustable to all the conditions that surround the placing and replacing of cocks in domestic and public institutions.

The desirable features of this cock are compounded leverage of the ball rod, magazine of rubber packings, revolving plunger, special metal for wearing parts, absence of sand pocket, ease of adjustment to high or low pressure, regulation of water in tank by adjustment of float-rod, removal of bottom and top seats without the use of tools and without disturbing the plumbing, and the use of the same valve for top, bottom and end connections.

The leverage of the float-rod is so compounded that it will hold any pressure that will be put on it. On account of this great leverage, a smaller float can be used.

The plunger revolves slightly each time the tank is emptied, causing an even wearing of the packing and the bottom seat, and as they are the only wearing parts of the cock it adds indefinitely to its life.

Owing to the construction of this cock it can be used to replace any make of ball cock without disturbing the plumbing.

Price each 3.00

The Try-Me Pressure Regulator is without diaphragm and positively will not creep and works equally well on water, gas or air.

As the water pressure in the mains in our cities and towns has been increased, a natural and constant demand is being made by both the plumber and wise property owner for a water pressure regulator that will accurately regulate the pressure and be free from mechanical deficiencies.

One of the features of this regulator is its positive control of volume; in other words, it not only acts in the capacity of a regulator, but also that of a volume, metric governor. It gives maximum flow with minimum pressure, which is an important element.

The Try-Me is made entirely of brass, thoroughly tested at 250 pounds and guaranteed; it will regulate the pressure from the pressure on the main down to zero, and will regulate the flow at any pressure; it can be used as an absolute shut-off.

Size Inches	Price Each	Size Inches	Price Each
1/4	7.50	1 1/4	15.00
3/8	7.50	1 1/2	18.00
1/2	7.50	2	29.00
5/8	10.00	2 1/2	40.00
1	12.00		

BALL COCKS

No. 2 M-VB



Fig. 5925A

No. 2 Wolff Pattern Elevated Compound Lever Ball Cock regular with $\frac{5}{8}$ -inch, or special with $\frac{3}{4}$ -inch Iron Pipe Size Shank.

Quiet in operation and made from red brass ingot metal. Fitted with compound leverage that will close under any pressure.
Price.....each 2.25

No. 6

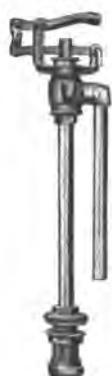


Fig. 5925B

No. 4



Fig. 5925C

No. 6 BALL COCKS

Elevated Compound Lever Ball Cock, fitted with $\frac{5}{8}$ -inch Shank for $\frac{5}{8}$ -inch Supply Pipe, Slip Joint or Collar.

Price.....each 1.25

No. 4 BALL COCKS

High Tank, Top Supply Compound Lever Ball Cock, Elbow threaded, $\frac{1}{2}$ -inch Iron Pipe Size, Tail Piece threaded $\frac{5}{8}$ -inch Iron Pipe Size.

Price.....each 1.25
Hush tube extra.

No. 20 M-VB



Fig. 5925D

High Tank, Bottom Supply Ball Cock, furnished with Tail Piece threaded $\frac{3}{8}$ -inch Iron Pipe Size.

Price.....each 1.50

SHERWOOD BALL COCKS

No. 66, 166



Fig. 5925E

No. 266



Fig. 5925F

Nos. 66, 166

Elevated pattern for low tanks. All cast parts made of bronze with steam metal seat. One pin holds all parts in place. Furnished regular with 9-inch float rod.

Price, No. 66 Part Elevated, $8\frac{3}{4}$ inches Higheach 1.50
Price, No. 166 Full Elevated, $12\frac{1}{2}$ inches Higheach 1.75

No. 266

Elevated ball cock for low down tank. Same as No. 66 except with integral stop.

An excellent feature in repairing tank or can be used as a regulator in case of very high water pressure.

Price, Part Elevatedeach 2.25
Also furnished with cast brass supply tube.

TANK VALVES, BALL COCKS, ETC.

FLUSH VALVES

Rubber Ball
Flush Valve

Fig. 7499A

Bell Hecla
Flush Valve

Fig. 7499B

IMPROVED BALL COCKS



Fig. 7499E

Size Inches	Price, Rough per Doz.	Size Inches	Price, Rough per Doz.
$\frac{3}{8}$	16.80	$\frac{3}{4}$	27.00
$\frac{1}{2}$	18.00	1	45.00

SOLDERLESS COPPER FLOATS

ROUND



Fig. 7499F

Size Inches	Price Without Stem per Doz.	Size Inches	Price Without Stem per Doz.
5	8.00	9	50.00
6	12.00	10	80.00
7	18.00	12	120.00
8	30.00		

OVAL



Fig. 7499G

Price, 4x5 inches per dozen 8.00

CUT OFF FLOAT RODS

Fig. 7499H

One end threaded regular, Float ball end with running thread for adjustment.
Length ... in. 6 7 8 9 10 12
Price .. per doz. 1.10 1.20 1.35 1.50 1.70 2.10



Fig. 7499C

Price, Top or Bottom Supply .. each 2.00

B. B. BALL COCKS



Fig. 7499D

Price, Top or Bottom Supply .. each 5.00

CLOSET TANK ACCESSORIES

REFILL TUBES



Fig. 5616A

Price, Long, Regular.....	per doz.	3.60
" Short, for Elevated Cocks	per doz.	2.40
Price, Long, for Low Tanks "		4.80

OVERFLOW TUBES FOR FLUSH VALVES



Fig. 5616B

Diameter.....inches	1	1 1/8	1 1/4
Price, Brass.....ea.	.55	.60	.65
" Hard Rubber "	.90	1.00	1.10

WIRES FOR TANK BULBS

Lever or Top Wire

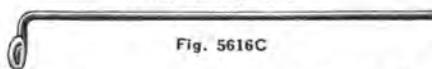


Fig. 5616C

Price.....each .20

Float or Bottom Wire

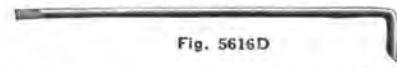


Fig. 5616D

Price.....each .20

OFFSET BAR HINGES

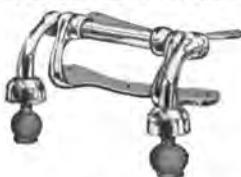


Fig. 5616E

Price, N. P. Cast Brass...per pair 1.50

OFFSET HINGES



Fig. 5616F

Price, N. P. Cast Brass...per pair 1.25

E. Z. FLUSH ROTARY VALVES



Fig. 5616G

Simple in construction and easy to install. Adjustable to any thickness of tank wall by means of patented telescoping shaft. Assembles in tank easily and quickly by the removal and replacement of one nut.

Handle rotates in either direction.
Price.....each 1.50

PLAIN WOOD CLOSET PULLS



Fig. 5616H

Price, Oak, with Rubber Ring. each .50
" Ebonized....." .50
" China or Celluloid....." .50

CHINA CLOSET CONNECTIONS

Closet Connection China Bolt Cap



Fig. 5616J

Straight Brass Closet Connection with China Casing and Flange.
Price.....each 5.50

Offset Brass Closet Connection with Vitreous China Casing and China Flange.
Price.....each 6.00

CHINA BOLT CAPS

Price.....each .20

CLOSET FLUSH CONNECTIONS

Slip Joint Elbow
for Low Tank

Fig. 39076A

Slip Joint Elbow
for High Tank

Fig. 39076B

2-INCH SLIP JOINT ELBOWS

Nickel-plated, with two 2-inch iron pipe size cast nuts and rubber washers.					
Size.....	inches	3½x5	4x6	5x6	6x8
Price, Nickel-plated Brass.....	each	1.30	1.50	1.75	2.00

1½-INCH SLIP JOINT ELBOWS

For High Tank Closet. For 1½-inch spud, and 1½-inch O. D. Tubing.					
Length, Center of Bend to End.....	inches	4	6	8	
Price, Nickel-plated Brass.....	each	1.00	1.20	1.50	

1¼-INCH SLIP JOINT ELBOWS

For High Tank Closet. For 1¼-inch spud and 1¼-inch O. D. Tubing.					
Length, Center of Bend to End.....	inches	4	6	8	
Price, Nickel-plated Brass.....	each	.60	.75	1.00	

Offset Connection



Fig. 39076C

Straight Connection



Fig. 39076D

2-INCH OFFSET CONNECTIONS, 6 INCHES LONG

Nickel-plated with two 2-inch iron pipe size nuts and rubber washers.					
Center to Center.....	inches	1	1½	2	2½
Price.....	each	1.30	1.50	1.70	1.90

2-INCH STRAIGHT CONNECTIONS, 6 INCHES LONG

Nickel-plated with two 2-inch iron pipe size nuts and rubber washers.					
Price.....	each				.90

NICKEL-PLATED BRASS SPUD REDUCERS



Fig. 39076E

Size, Iron Pipe Thread.....	inches	2x1¼	2x1½
Slips O. D. Tubing.....	"	1½	1½
Price, with Nut.....	each	1.00	1.25

FLOOR FLANGES, ETC.

CLOSET FLOOR FLANGES

PLAIN CAST BRASS



Fig. 33541A

Light pattern, 6 $\frac{1}{8}$ -inch, outside diameter,
4 $\frac{1}{4}$ -inch, inside diameter.

Price, with Bolts and Washers each 1.00
Add for Asbestos Molded Gasket .25

DURHAM FLOOR FLANGES

EXTRA HEAVY PATTERN
MALE THREAD

Fig. 33541B

Price, with Bolts and Washers each 2.40
Add for Asbestos Molded Gasket .25

DURHAM FLOOR FLANGES

EXTRA HEAVY PATTERN
FEMALE THREAD

Fig. 33541C

Price, with Bolts and Washers each 2.60
Add for Asbestos Molded Gasket .25

BRASS THREADED RODS



Fig. 33541D

 $\frac{1}{4}$ -inch diameter.

Price, in 2-foot Lengths per foot .15

RENTON FLOOR FLANGES

FOR LEAD PIPE



Fig. 33541E

Price, with Bolts, Washers and Asbestos Graphite Gasket each 1.50

FOR IRON PIPE



Fig. 33541F

Price, with Bolts, Washers and Asbestos Graphite Gasket each 4.25

CLOSET SCREWS CLOSET FLANGE BOLTS

No. 1 No. 2 No. 3



No. 4



Fig. 33541G

	Iron	Brass
Price, No. 1 Screws, N.P. per 100	5.65	6.90
" " 2 " " 100	6.90	8.75
" " 3 Bolts " " 100	....	7.80
" " 4 " " 100	....	5.00

CLOSET SCREW WASHERS

No. 5



No. 6



No. 7



Fig. 33541H

Number	5	6	7
Price, Washers, N. P.	1.50	1.75	2.00

WATER CLOSET FLUSH AND SUPPLY PIPES

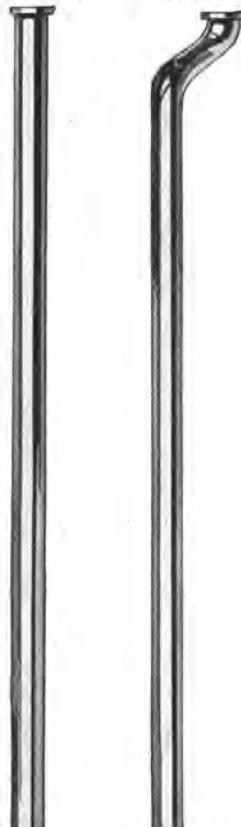
FLUSH PIPES
STRAIGHT OFFSET

Fig. 3104A

Fig. 3104B

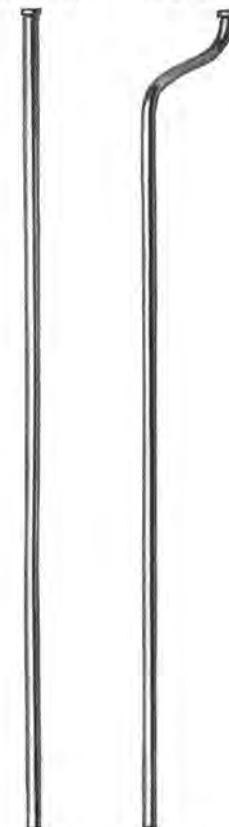
SUPPLY PIPES
STRAIGHT OFFSET

Fig. 3104C

Fig. 3104D

SUPPLY PIPES
FOR LOW TANKS

PLAIN

Fig. 3104E
WITH COCK

Fig. 3104F

In ordering flush and supply pipes always send coupling nut from both flush and supply tank spuds, and state distance (when offset pipes are wanted) from center of flush and also supply spuds to back of tank.

FLUSH PIPES

Size, No. 20 Gauge.....	inches	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Price, Nickel-plated, Straight.....	each	....	....	....
" " " Offset .....	"	....	....	....

SUPPLY PIPES

Size.....	inches	$\frac{3}{4}$	No. 14 Ga.	$\frac{3}{8}$ I. P.	$\frac{1}{2}$ I. P.
Price, Nickel-plated, Straight, 7 Feet Long	each	....	....	....	....
" " " Offset, 7 "	"	....	....	....	....

For pipes with a larger offset than $3\frac{1}{2}$ inches, extra charge will be made.

SUPPLY PIPES FOR LOW TANKS

Size.....	inches	$\frac{3}{4}$	No. 14 Ga.	$\frac{3}{8}$ I. P.
Price, Nickel-plated, Plain.....	each	....	....	....
" " " with Cock .....	"	....	....	....

CLOSET SEATS
WHITE PYRALIN

No. 122

**Fig. 5360A**

All White Pyralin Square Back Full Saddle Seat and Cover with Concealed Hinge, White Posts and White Cushion Bar Bumpers.

Price, No. 122 with Cover 18.90
" " 130 without Cover.... 15.34

No. 300

No. 142

**Fig. 5360C**

All White Pyralin Plain Square Back Seat and Cover with Concealed Hinge, White Posts, and White Rubber Bumpers. No exposed metal.

Price, No. 142 with Cover 16.70
" " 150 without Cover.... 13.11

No. 440**Fig. 5360B**

White Pyralin Square Back Full Saddle Seat and Cover with Nickel-plated Heavy Cast Brass Bar Hinge and White Cushion Bar Bumpers.

Price, No. 300 with Cover..... 15.00
" " 310 without Cover.... 11.45

**Fig. 5360D**

White Pyralin Plain Square Back Seat and Cover with Nickel-plated Heavy Cast Brass Bar Hinge and White Cushion Bar Bumpers.

Price, No. 440 with Cover..... 13.34
" " 450 without Cover ... 10.00

**CLOSET SEATS
WHITE PYRALIN**

No. 162



Fig. 5361A

All White Pyralin Open Front Full Saddle Seat and Cover for Regular Bowl with Concealed Hinge and White Posts and White Cushion Bar Bumpers.

Price, No. 162 with Cover..... 21.00
" " 170 without Cover.... 17.56

No. 186

No. 460



Fig. 5361C

White Open Front Plain Seat and Cover for Regular Bowl with Nickel-plated Heavy Cast Brass Bar Hinge and White Cushion Bar Bumpers.

Price, No. 460 with Cover..... 16.11
" " 470 without Cover.... 12.56

No. 360



Fig. 5361B

All White Pyralin Open Front Full Saddle Seat and Cover for Extended Lip Bowl, Concealed Hinge and White Posts and White Cushion Bar Bumpers.

Price, No. 186 with Cover..... 23.90
" " 190 without Cover.... 20.44



Fig. 5361D

White Pyralin Open Front Full Saddle Seat and Cover for Extended Lip Bowl with Nickel-plated Heavy Cast Brass Bar Hinge and White Cushion Bar Bumpers.

Price, No. 360 with Cover..... 18.89
" " 370 without Cover.... 14.89

WHALE-BONE-ITE CLOSET SEATS



OVAL SEATS WITHOUT COVER

No. 24-9



Fig. 33613A

Whale-Bone-Ite Oval Seat without Cover with Nickel-plated Bar Hinge and Straight Seat Posts. For all staple type bowls.

Price, Ebony Finish.....each 13.50
" Mahogany Finish....." 15.25

No. 24-91 WITH COVER

Price, Ebony Finish.....each 24.50
" Mahogany Finish....." 28.50

OPEN FRONT SEATS
WITHOUT COVER

No. 23-9



Fig. 33613B

Whale-Bone-Ite Open Front Seat without Cover with Nickel-plated Bar Hinge and Straight Seat Posts. For all staple bowls.

Price, Ebony Finish.....each 14.00
" Mahogany Finish....." 16.70

No. 23-91 WITH COVER

Price, Ebony Finish.....each 25.00
" Mahogany Finish....." 29.00

This seat is made of a laminated core, with layers running crosswise, and covered with a sealed composition of Whale-Bone-Ite which is put on in its softened state under heavy hydraulic pressure, thus anchoring the covering, to the core, making one solid, concrete piece, then vulcanized, which produces the hard surface capable of taking a high grade, lasting polish. Sanitary and impervious to moisture; not affected by action of uric acid. No joints to open.

SADDLE SEATS WITH COVER

No. 16-91



Fig. 33613C

Whale-Bone-Ite Saddle Seat with Cover and Nickel-plated Bar Hinge with Straight Seat Posts. For all staple type bowls.

Price, Ebony Finish.....each 25.80
" Mahogany Finish....." 30.80

No. 16-9 WITHOUT COVER

Price, Ebony Finish.....each 14.70
" Mahogany Finish....." 17.30

EXTENDED OPEN FRONT SEATS
WITHOUT COVER

No. 21-9



Fig. 33613D

Whale-Bone-Ite Extended Open Front Seat without Cover with Nickel-plated Bar Hinge and Straight Seat Posts. For all extended lip bowls.

Price, Ebony Finish.....each 14.80
" Mahogany Finish....." 18.30

No. 21-91 WITH COVER

Price, Ebony Finish.....each 26.00
" Mahogany Finish....." 30.00

NEVERSPLIT CLOSET SEATS

No. 115



Fig. 42081A

$1\frac{1}{4}$ -inch Seat with Cover and Cast Brass Straight Post Hinges.

Price, Natural, Antique or Golden Oak, Gloss Finish.....	6.00
Price, Imitation Mahogany or Cherry, Rubbed Finish.....	6.50

No. 135



Fig. 42081B

$1\frac{1}{4}$ -inch Selected Quarter Sawed White Oak Saddle Seat with Cover and Heavy Cast Brass Offset Bar Hinges.

Price, Natural, Antique or Golden Oak, Imitation Mahogany or Imitation Cherry, Piano Polish..	8.00
---	------



Fig. 42081E

No. 120



Fig. 42081C

$1\frac{1}{4}$ -inch Quarter Sawed Stock Square Back Seat with Cover and Cast Brass Offset Bar Hinges.

Price, Natural, Antique or Golden Oak, Gloss Finish.....	6.50
Price, Imitation Mahogany or Cherry, Rubbed Finish.....	7.00

No. 177



Fig. 42081D

$1\frac{1}{2}$ -inch Selected Quarter Sawed Oak Seat with Open Front and Square Back fitted with Heavy Cast Brass Hotel Hinge.

Price, Natural, Antique, or Golden Oak, Imitation Mahogany or Imitation Cherry, Rubbed Finish	7.70
---	------

No. 175

$1\frac{1}{2}$ -inch Selected Quarter Sawed Stock Square Back Seat, fitted with Heavy Cast Brass Hotel Hinge.

Price, Natural, Antique, or Golden Oak, Imitation Mahogany or Imitation Cherry, Rubbed Finish	7.70
---	------

CLOSET SEATS

No. 301



Fig. 39357A

Golden Oak Improved Self-Raising Seat with Extra heavy Nickel-plated Cast Brass Bar Hinge with One or Two Adjustable Ball Weights.

Constructed so as to raise seat at any angle. Made in any wood, color or finish desired.

Price.....each 10.00

No. 200

PATENTED

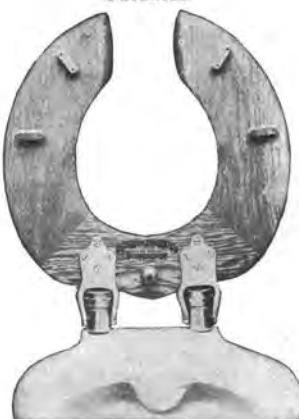


Fig. 39357C

Open Front Oak Seat with Emery Patented Nickel-plated Heavy Cast Brass, Self-raising Spring Hinges and Rubber Bumpers.

Price.....each 7.00

SEAT WITH OFFSET HINGES



Fig. 39357B

Golden or Natural Oak Semi-Saddle Seat and Cover with Extra Offset Post Bar Hinges.

This seat meets the demand where a regular seat does not provide sufficient offset to allow the proper balance when raised.

Price.....each 5.00

No. 600X11



Fig. 39357D

Plain Rim 1 1/4-inch Seat for Staple Bowl with Cover and Back Strip and Nickel-plated Brass Flanged Hinges.

Price, Oak with Cover.....each	6.80
" without Cover....."	5.90

CHEMICAL CLOSET STORAGE SYSTEMS

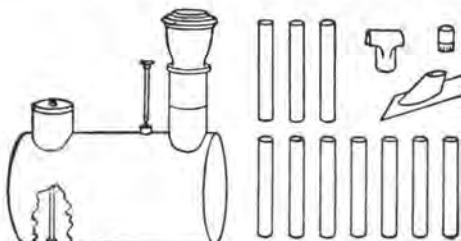


Fig. 41526A

REGULAR SYSTEMS

All storage tanks are proofed against rust by special process of plastic enamel impervious to moisture, and not affected by conditions of soil, acids or chemical action.

Each system includes storage tank, fitted with agitator and drain valve, bowl and seat, 24-inch drop tube, package of roof cement, toilet paper and holder.

Standard size tank, 28 inches diameter, 48 inches long. Weight, complete system, about 350 pounds.	
Price, No. 305, 128-gallon Tank, Complete with Regular Fittings, no Ventilation	each
Price, No. 304, same as No. 305, with 10 feet of Vent Elbow Collar, with Roof Fittings	each
Price, No. 303, same as No. 305, with 20 feet of Vent Roof Fittings	each

COTTAGE AND HOME TYPES

Designed especially for camps and homes. Size of tank, 48 inches long, 22 inches diameter. Weight, complete system, about 275 pounds.	
Price, No. 381, 80-gallon tank, Designed as the No. 305, includes Ventilation, Elbow and Wall Collar	each
Price, No. 385, same as No. 381, with Metal Hopper Instead of China Bowl	each

LARGER SIZES OF MULTIPLE TANKS

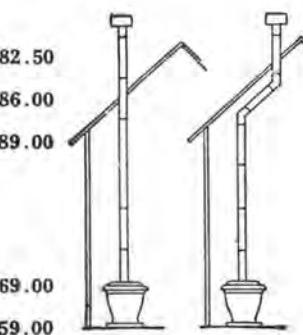
Where it is desirable to place more than one bowl on a tank, larger tanks are furnished. Capacity 125 gallons per bowl. Ordinary installations may be figured with complete ventilation at 89.00 per bowl.

PERFECTION CHEMICALS FOR STORAGE TANKS

Price, No. 525, 25-pound Can, Regular Charge for any 125-gallon Storage Tank or for each Bowl of Multiple Systems	per can	3.50
Price, No. 515, 15-pound Can, Regular Charge for 80-gallon Storage Tank Systems	per can	2.50

CHEMICAL COMMODES

No. 130, round toilet, grey enameled, stamped base, wired top, oak finish seat, brass finish hinges, complete with container and 2 elbows, wall collar, toilet paper holder, and 1 package of perfection chemical.	
Price	each



CHEMICAL SUPPLIES FOR COMMODES

Price, No. 505, 5-pound Can Dry, 1 dozen in Case	per case	12.00
Price, No. 508, ½ gallon, Liquid, 1 dozen in Case	per case	12.00
Price, No. 510, 1 gallon, Liquid, 1 dozen in Case	per case	21.00
Above are suitable for use in any style of commode toilet.		

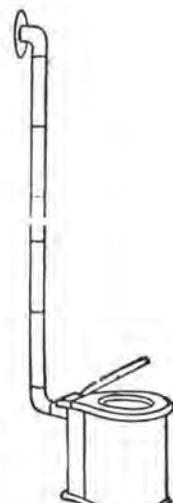


Fig. 41526B

SAN-EQUIP SEPTIC TANKS

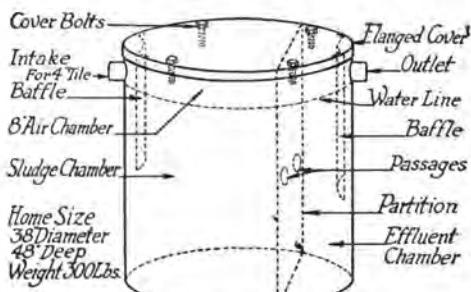


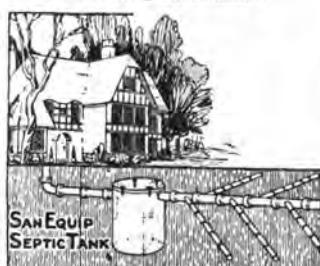
Fig. 41527A

A sewage disposal tank for any home, camp, school or mill in unsewered districts. Rust proofed, ready to set.

This design is known as the L. R. S. type and is approved by the U. S. Public Health Service.

It is durable, rust proof and indestructible. Built of 14 gauge best copper alloy and protected against rusting by special process of plastic enamel. It has a removable top bolted on.

Showing Installation



A simple plan for a filter area consists of one main tight line of 4-inch hub tile with open joint branches, graded 1 inch to 12 feet; laid in trench 12 inches to 18 inches deep, with joints open $\frac{1}{4}$ inch and tops covered with tar paper. A stone filled well 18 inches deep at end of branches provides for overload. Porous soil requires about 20 feet of 4-inch per person on the average. In tight soil 30 to 40 feet per person should be used, with a 12-inch layer of stone under and a 6-inch layer over the tile.

Ratings are furnished by U. S. Public Health Service, subject to changes as local codes may require.

No.	Cap. Gallons	Number People	Diam. Inches	Depth or Length Inches	Weight Pounds	Price Each
402	200	6	38	48	300	56.00
403	300	10	47	48	350	72.00
405	500	20	48	72	600	104.00
410	1000	50	48	144	1100	196.00

Prices do not include any filter tile.

Allow 15 gallons per person for schools.

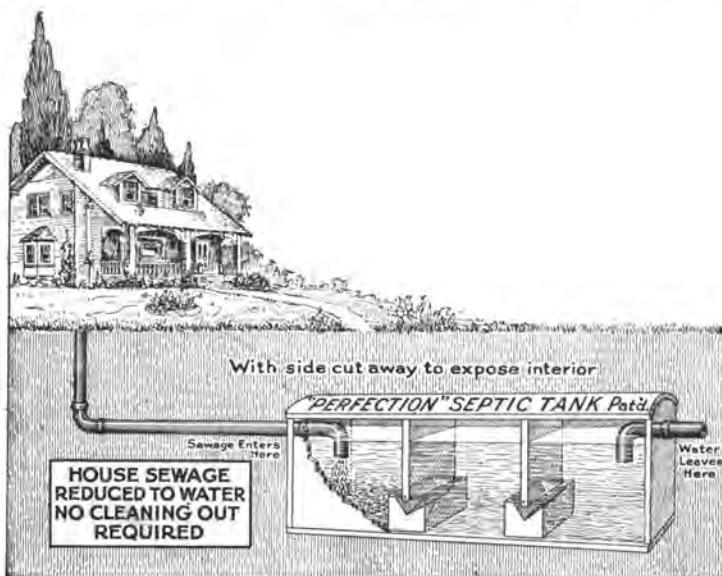
Nos. 402 and 403 are upright round tanks. The Nos. 405 and 410 are horizontal round tanks with two man holes.

Special plans for larger capacity disposal systems will be furnished upon application.

PERFECTION SEPTIC TANKS

PATENTED

SANITARY SEWAGE DISPOSAL WITHOUT SEWERS



To be used in connection with inside closet, bathroom and kitchen sink, where there is no sewer connection, for residence, schools, churches, factories, etc.

The Perfection Septic Tank liquifies house sewage by the process of bacteria, which enter the tank with the sewage and, being increased by millions, literally devour and digest all contents, including tissue paper.

This tank is made of reinforced cement concrete in sections for convenience in handling. These sections are cemented together in the ground forming a receptacle that is air and water tight.

The walls are 2 inches thick all around and every section is reinforced with steel.

The residence size, which has three compartments is large enough for eight people. This size is known as the unit and larger sizes are multiples of this unit.

To preserve the life and activity of the bacteria, the excavation for this tank should be deep enough to maintain a temperature of not less than 50 degrees in the coldest weather. This should be approximately 3 to 5 feet deep.

Full directions for installing and using this tank go with every shipment.

Where these directions are followed (which are simple and easy) the manufacturers guarantee that all contents of the tank will be reduced to water, which may be emptied anywhere without offense to sight or smell and that the tank will require no cleaning out.

PORCELAIN URINAL STALLS

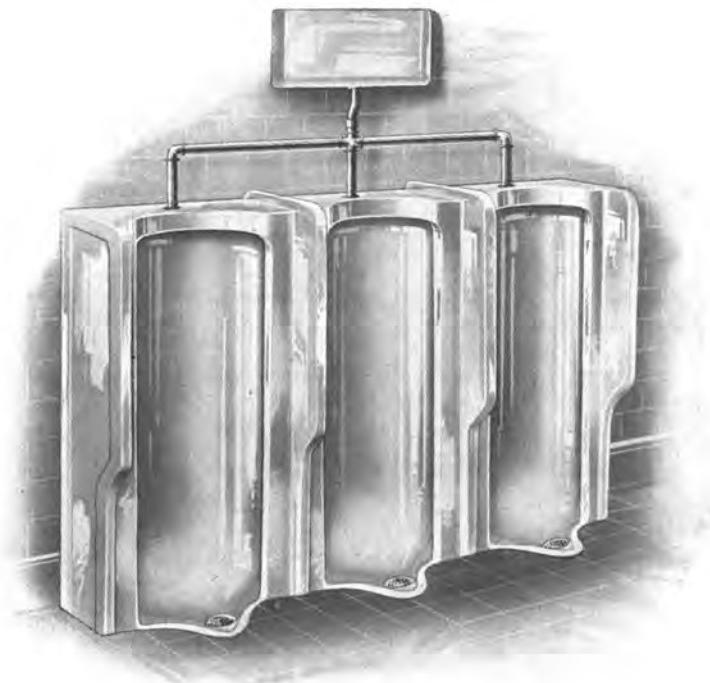


Fig. 32544A

Semi-vitreous Porcelain Urinal Stalls with Integral Shields, arranged in Battery with Interlocking Concealed Seam, Vitreous China Automatic Flush Tank, Nickel-plated Three-way Flush Pipe, Spreaders, Locknuts and Strainers.

Also made with both sides glazed to set singly.

Size, Number.....	1	2
Width Over All, Each Stall.....inches	18	24
Height " " "	46½	48
" Floor Line to Top of Stall....."	42	43½
Center of Inlet to Back " "	2¾	2¾
" " Outlet " " "	9	13
Front of Drip Base to Back of Stall....."	17	19
Approximate Shipping Weight, One Stall only.....pounds	310	450
" " " Tank only....."	65	65

Measurements may vary $\frac{1}{4}$ to $\frac{3}{4}$ inch.

Prices upon application.

PORCELAIN URINAL STALLS



Fig. 36359A

Battery of Three Porcelain Urinal Stalls with Porcelain Overlap Partition Shields, Six-gallon Vitreous China Tank on Concealed Bar Hanger, Operated by Periodic Discharge Fittings with Top Supply and Stop, N. P. Three-part Flush Connection, Nickel-plated Fan Spreaders with Slip Nuts, Nickel-plated Outlet Strainers and Connection for either Lead or Wrought Iron Pipe and Vitreous China Strainers.

Height Over All 41 $\frac{1}{4}$ inches Height from Floor Line, 38 inches

Width	inches	18	24
Length Over All	"	60	78
Price, as described			

Prices on Urinal Stalls are based on kiln run ware, with extra charge for special selection.

PORCELAIN URINAL STALLS

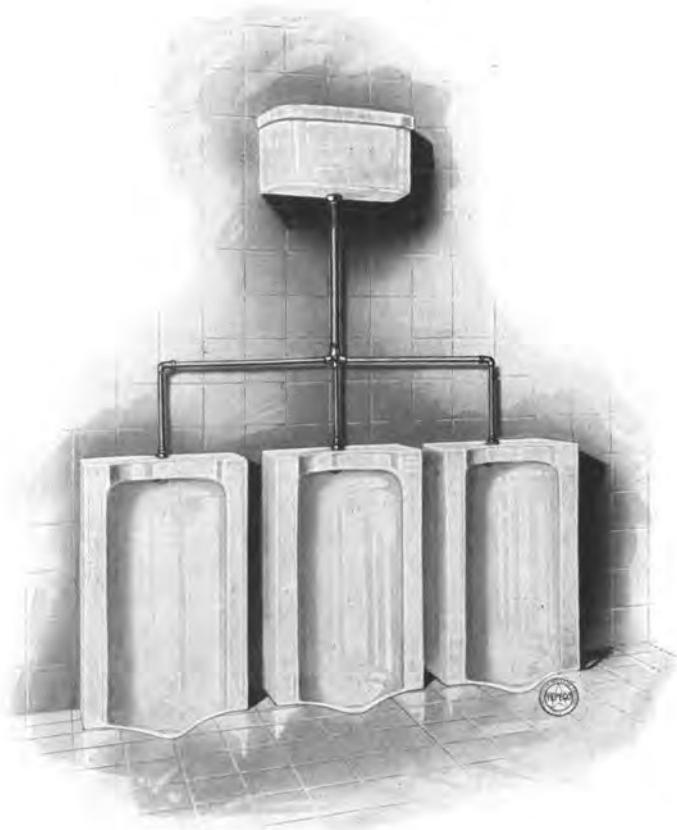


Fig. 35296A

Battery of Three Porcelain Straight Front Urinal Stalls, with Six-gallon Vitreous China Tank on Concealed Bar Hanger, operated by Periodic Discharge Fitting with Top Supply, Nickel-plated Brass Three-way Flush Connection, Nickel-plated Brass Fan Spreaders, with Slip Nuts, Nickel-plated Brass Outlet Strainers and Connection for either Lead or Wrought Iron Pipe and Vitreous China Strainer.

Height Over All, 41 $\frac{3}{4}$ Inches. Height from Floor Line, 38 Inches.
Wall to Front of Lip, 15 Inches.

Width .....	.....	inches	18	24
Price, as described .....	.....		

All prices on Porcelain Urinals are based on kiln-run ware. An extra charge will be made for special selection.

**PORCELAIN URINAL STALLS
THE DUPLEX**

PATENTED



Fig. 39812A

Duplex Semi-vitreous Porcelain Double Urinal Stall with Center Shield, Drip Receptors, and Center Waste Outlet. Cast in one piece, All Exposed Surfaces Glazed, and Two Integral Vitreous Bell Spreaders with One Inlet and Brass Spud, Three Gallon Porcelain Tank with Automatic Fittings, Nickel-plated Flush Pipe, Nickel-plated Brass Waste Coupling with Porcelain Strainer.

Height Over All, 44 inches	Height from Floor Line, 39½ inches
Wall to Front of Lip, 12 inches	Wall to Center of Waste, 7½ inches
Width over all, 24 inches	

Price, as described.....

All prices on Porcelain Urinals are based on kiln-run ware. An extra charge will be made for special selection.

The Duplex Evolution Urinal Stall has many advantages over the regulation stalls in cost of installation and sanitary qualities. It eliminates the complete roughing-in of one urinal, one flush pipe and inlet connection. The flush spreaders are made an integral part of the stall which eliminates two brass spreaders. All unsightly and troublesome joints are eliminated, insuring perfect sanitation.

PORCELAIN URINAL STALLS

WITH EXTENDED WING SHIELD

WITH STRAIGHT FRONT



Fig. 401A

Solid Porcelain Urinal Stall with Extended Wing Shield, Top Inlet and Extended Lip.

Width.....	in.	18	24
Height Over All.....	"	41 $\frac{3}{4}$	41 $\frac{3}{4}$
" Floor Line to Top..	"	38	38

Price.....

Prices are for kiln-run ware. An extra charge will be made for special selection.

The Victory Extended Wing Stall is a very efficient and sanitary fixture for installation of a battery of urinals where sufficient room is provided between stalls to allow cleaning. May also be used where a single stall is required.



Fig. 401B

Solid Porcelain Urinal Stall with Straight Front, Top Inlet and Extended Lip.

Width.....	in.	18	24
Height Over All.....	"	41 $\frac{3}{4}$	41 $\frac{3}{4}$
" Floor Line to Top..	"	38	38

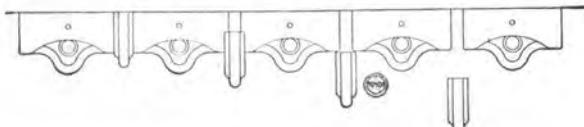
Price.....

Prices are for kiln-run ware. An extra charge will be made for special selection.

These Urinals may also be furnished with Integral Hooded Vent.

The Victory Straight Front Stall may be used singly or in battery. When used with the Victory seam cover it provides a very practical and sanitary installation.

Showing Method of Installing Seam Covers On
Straight Front Urinals



PORCELAIN URINAL STALLS



Fig. 17029A

Battery of Three One-piece Porcelain Urinals with Integral Interlocking Shields and Drip Receptors, Nickel-plated Bronze Metal Flush Valves with Oscillating China Handles, Self-cleansing Spreaders, 5-inch Removable Convex Strainers and Waste Connections.

Height above Floor 44 inches
Depth below Floor Line 4½ inches

Width each Stall 18 and 24 inches
Wall to Front of Receptors 19 inches

Price, 18-inch, as described, Battery of Three .....	.....
" 24 " " " " "	.....
Add or deduct for each 18-inch Stall, Complete .....	.....
" " " " 24 " " "	.....
Price, 18-inch Single Stall, without Fitting .....	.....
" 24 " " " " "	.....

The seams in interlocking shields are concealed and assure a sanitary and perfect construction.

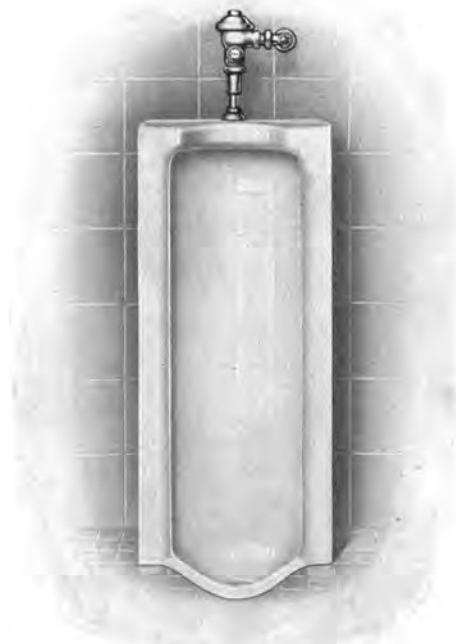
PORCELAIN URINAL STALLS

Fig. 35085A

Porcelain Urinal Stall with Nickel-plated Brass Flushing Valve, with China Push Button and Integral Stop, Nickel-plated Inlet Connection and Spreader, Nickel-plated Strainer and Outlet Connection and Vitreous China Removable Strainer.

Width.....	inches	18	24
Height Over All.....	"	41 $\frac{3}{4}$	41 $\frac{3}{4}$
" Above Floor.....	"	38	38
Bottom of Urinal to Top of Lip.....	"	3 $\frac{3}{4}$	3 $\frac{3}{4}$
Price.....	each	....	....

VITREOUS CHINA URINALS

SYPHON JET

WALL URINALS

PEDESTAL URINALS

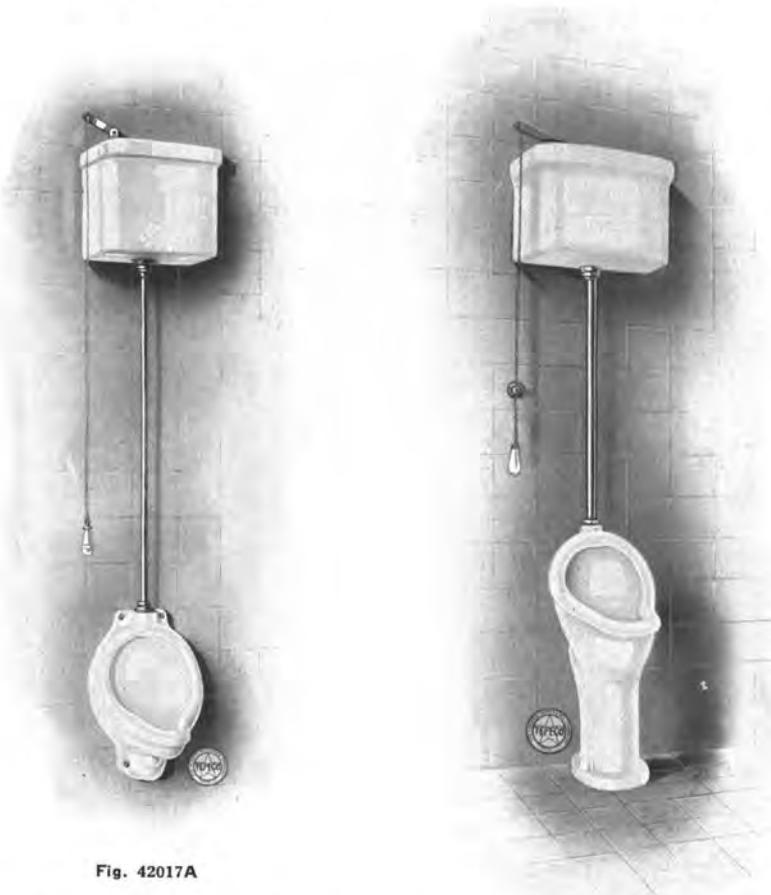


Fig. 42017A

Vitreous China Syphon Jet Wall Urinal, with Top Inlet Spud and Back Outlet, 4-gallon Vitreous China Bellemeade High Tank on Concealed Bar Hanger with Top Supply Fittings for $\frac{3}{8}$ -inch Iron Pipe, Chain and Pull, Nickel-plated Brass Flush Pipe and Rough Brass Outlet Connection.

Price, as described.....
" Urinal only.....
If with Bottom Outlet, Add.....
" " Wall Outlet Washout Urinal, Deduct.....
Above can also be furnished with Enamelled Iron Tank.

Fig. 42017B

Vitreous China Pedestal Syphon Jet Urinal with Top Inlet Spud, 4-gallon Vitreous China Bellemeade High Tank on concealed Bar Hanger with Top Supply Fittings for $\frac{3}{8}$ -inch Iron Pipe, Chain, Pull and Chain Guide, Nickel-plated Brass Flush Pipe and China Bolt Caps.

Price, as described.....
" Urinal only.....
If with Washout Urinal, Deduct

SLATE URINAL STALLS



Fig. 41727A

Three-stall Slate Urinal with 1-inch Ends and Partitions finished Both Sides, 1-inch Back finished One Side, 2-inch Countersunk Base with Gutter Sunk in same at Back for draining to Center or Either End, Brass Bee-hive Strainer with Coupling and Nickel-plated Brass Perforated Washdown Pipe with Loose Key Stop Cock. Ends and Partitions supported by Nickel-plated Brass Clamps.

Height of Stall, 5 feet Depth, 20 inches
Width Center to Center of Partitions, 24 inches

Price, as described.....	.....	.....
For Each Additional Stall, add.....	.....	.....
" Less than 3 Stalls, deduct each .....	.....	.....

FITTED FOR PORCELAIN URINAL BOWLS

Three-stall Slate Urinal with 1-inch Ends and Partitions finished Both Sides, 1-inch Back finished One Side and drilled for Porcelain Urinal Bowls, 7-inch Capping covering 6-inch Working Space for Connections, and 2-inch Countersunk Base, fitted with Nickel-plated Brass Clamps.

Width from Center to Center of Partitions, 24 inches
Depth of Partitions, 20 inches Depth of Ends, 26 inches

Height.....	feet	5	5½
Price, as described, without Urinal Bowls.....	.....	.....	.....
For Each Additional Stall, add.....	.....	.....	.....
" Less than 3 Stalls, deduct each .....	.....	.....	.....

URINAL STALLS

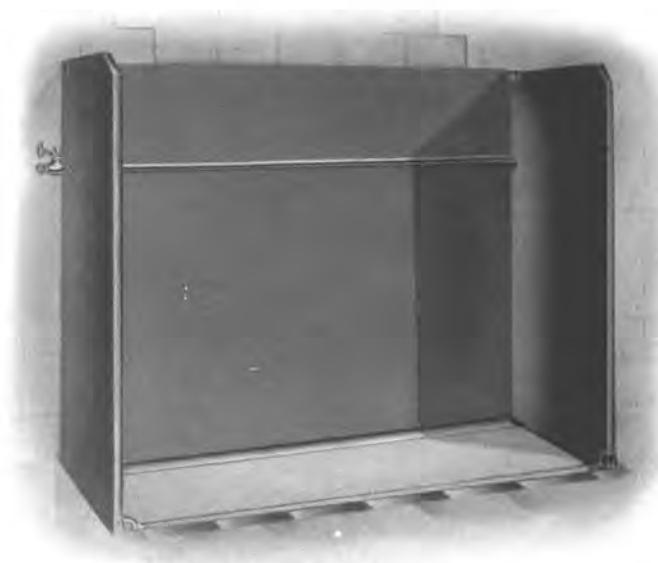


Fig. 7340A

Single Slate or Marble Urinal Stall with Back and Two Ends, without Center Partitions, 1½-inch Countersunk Base, Galvanized Cast Iron Gutter with Outlet Connection, Perforated Wash Down Pipe and Loose Key Stop, and Brass Clamps and Bolts.

Height Feet	Length Feet	PRICE, EACH		
		Slate	Tennessee Marble	Italian Marble
5	2	.....	.....	.....
5	4	.....	.....	.....
5	6	.....	.....	.....
5	8	.....	.....	.....
5	10	.....	.....	.....
5	12	.....	.....	.....
5½	2	.....	.....	.....
5½	4	.....	.....	.....
5½	6	.....	.....	.....
5½	8	.....	.....	.....
5½	10	.....	.....	.....
5½	12	.....	.....	.....

Can be made of any length, height and depth to suit requirements.

Can also be furnished with automatic flushing tank, prices varying according to capacity of tank required for the different lengths of the stalls.

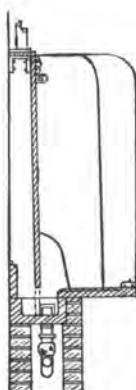
**SPECIAL SINGLE VENTILATED
SLATE URINALS
FOR SCHOOLS AND PUBLIC BUILDINGS**



Fig. 5820A

Special Single Ventilated Slate Urinal with Partitions, Back Cap, Slate Gutter and Floor Slab; Floor Slab Grooved; Nickel-plated Standing Waste, Perforated Wash Down Pipe with Loose Key Stop Cock, Partition Braces and Vent Collar.

Dimensions of Stalls: Height, 4 feet 6 inches or 5 feet; Width, 2 feet, Center to Center of Partitions; Depth, Ends, 2 feet 4 inches; Partitions, 1 foot 2 inches; Thickness, Ends, Partitions, Cap and Back, 1 inch; Manhole Cover, $1\frac{1}{4}$ inches; Floor Slab, 2 inches; Gutter, 6 inches. In ordering, give location of waste.



Number of Stalls	1	2	3	4	5	6
Price, Complete as described, 4 feet 6 inches High.....						
Price, Complete as described, 5 feet High						

Special sizes will be made if requested.

Special Single Ventilated Urinals were designed by one of the leading sanitary engineers, and meet every demand for perfect sanitation. These urinals commend themselves to every architect, sanitary engineer, etc., for their ventilating effect upon the entire room. Through an opening near the urinal floor a constant flow of air passes into the air space behind the back, and out at the top through a vent flue as shown in cross section above. By connecting it with a warm air flue or chimney an efficient draft is generated. The entire surface of the back slabs is constantly flushed from a perforated brass wash down pipe fitted with a loose key stop cock to regulate the flow of water, reducing it to a minimum. Special attention is invited to the gutter, made from a solid block of slate, and filled with a constantly changing body of water, 3 inches deep. A standing waste syphons the gutter periodically. When flushing out the toilet room the surplus water can be disposed of by simply unscrewing the cap of the waste. A manhole at end of urinal gives ready access to the gutter and its connections.

URINALS AND TANKS

VITREOUS CHINA BEDFORDSHIRE
URINALS
FLAT BACK, LIPPED



Fig. 41602A

Vitreous China Flat Back Urinal with Extended Lip, $\frac{3}{4}$ -inch Supply Spud and $1\frac{1}{2}$ -inch Outlet Spud.

Wall to Front of Lip, $12\frac{3}{4}$ inches

Width of Bowl 14 inches

Price, as described.....

CORNER URINALS, LIPPED

Size.....inches 11x11

Price, as described.....

VITREOUS CHINA BEDFORDSHIRE
URINALS
FLAT BACK, LIPPED



Fig. 41602B

Vitreous China Flat Back Urinal with Extended Lip and Horn Inlet and Outlet Connections.

Wall to Front of Lip, $12\frac{3}{4}$ inches
Width of Bowl, 14 inches

Price, as described.....

CORNER URINALS, LIPPED

Size.....inches 11x11

Price, as described.....

AUTOMATIC URINAL TANKS



Fig. 41602C

Capacity Gallons	PRICE EACH, COMPLETE			Capacity Gallons	PRICE EACH, COMPLETE		
	Vitreous China	Cast Iron Enameling In and Out			Vitreous China	Cast Iron Enam. In and Out	
2		5	.....	.....
3		6	.....	.....
4		8	.....	.....

URINAL FITTINGS

BRASS FLUSH PIPES FOR AUTOMATIC URINAL TANKS



Fig. 14097A



Fig. 14097B



Fig. 14097C

Price, as shown for Single Urinal, Finished or N. P.	each	1.50
" " " " Two Urinals, " " "	"	6.00
" " " " Three " " "	"	9.00
" " " " Four " " "	"	14.00

PERFORATED BRASS FLUSH PIPE WITH PIPE TO TANK



Fig. 14097D

Length	feet	2	3	4	5	6
Price, Finished or Nickel-plated	each	3.50	4.20	4.90	5.60	6.30



**Perforated Brass Flush Pipe
With Compression Loose Key Stop**



Fig. 14097E



Fig. 14097



Extension Support

FLUSH PIPES WITH STOPS

Length	feet	2	3	4	5	6	8	10
Price, $\frac{3}{4}$ -in., 18-ga. Fin. or N. P.	each	2.75	3.45	4.15	4.90	5.60	6.30	7.00
" $\frac{1}{2}$ " I.P. Size, Fin. or N.P.	"	3.25	4.00	4.75	5.50	6.25	7.75	9.25
" $\frac{3}{4}$ "	"	4.50	5.50	6.50	7.50	8.50	10.50	12.50

SUPPORTS FOR FLUSH PIPES

Price, Supports, Plain, Fin. or N. P. each .25
 " " Extension, Fin. or N. P. " .50

URINAL FITTINGS INLET CONNECTIONS

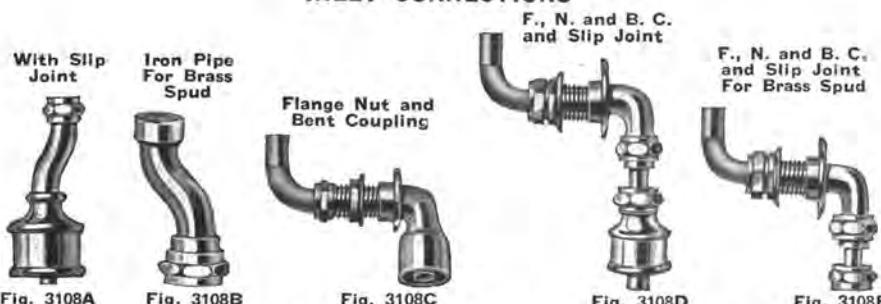


Fig. 3108A Fig. 3108B

Fig. 3108C

Fig. 3108D

Fig. 3108E

Price, with Slip Joint, Finished or Nickel-plated.....	each	.90
" for Iron Pipe, for Brass Spud Urinal, Finished or Nickel-plated.....	"	1.10
" with Slip Joint, for " " " " "	"	1.20
" Adj. Flange, Nut and Bent Coupling " " " "	"	1.80
" " " " and Slip Joint, Fin. or N. P.	"	3.00
" " " " Bent Coupling and Slip Joint, for Brass Spud, Fin. or N. P.	each	3.00

OUTLET CONNECTIONS



Fig. 3108F

Fig. 3108G

Price, with Adj. Flange and Bent Coupling, Finished or Nickel-plated.....	each	2.50
" " " " " Ground Joint Tee, Finished or Nickel-plated.....	"	7.15
" Extra for Vent and Waste Connection.....	"	.60

Add .50 for each connection bushed for iron pipe.

TRAPS

With Flange and Bent Coupling



Fig. 3108H

Adjustable Flanges

With Waste and Vent



Fig. 3108J

Price, with Adj. Flange and Bent Coupling, Finished or Nickel-plated.....	each	4.00
" " " " " Shank for 1½-in. I. P., Finished or Nickel-plated "	"	3.60
" " " " " Waste and Vent, Finished or Nickel-plated.....	"	4.40
" " " " " Slip Joint and Bent Coupling, Finished or Nickel-plated.....	"	5.40
" " " " " Bent Coupling and Waste and Vent, Fin. or N. P....	"	6.00

Add .50 for each connection bushed for iron pipe.

URINAL FITTINGS

URINAL STALL STRAINERS
FOR LEAD PIPE CONNECTIONS

Fig. 11074A

Price, Nickel-plated Brass; Regular Pattern with 4½-inch Flange and Removable Face, each 6.00

FOR IRON PIPE CONNECTIONS



Fig. 11074B

Price, Nickel-plated Brass; for 3-inch Iron Pipe Connection with 4½-inch Flange and Removable Face, each 7.35

VITREOUS CHINA



Fig. 11074C

Price, Vitreous, to Fit Over Brass Outlet Strainer, each 1.00

ACORN FLUSH SPREADERS



Fig. 11074D

Price, Nickel-plated Brass; with Slip Joint Nut for ½-inch I.P. Supply, each 2.00

INLET CONNECTIONS



Fig. 11074E

Price, Nickel-plated Brass, with 1¼-inch O.D. Slip Joint Nut for Flush Pipe, each

.95

ROYAL FLUSH VALVES



Fig. 11074F

Royal Flush Valves flush the same amount of water at each operation, regardless of whether the handle, or push button, is held or released, and thus automatically prevent the user from causing either an excessive or an insufficient flush, which is a very important feature where valves are used by the general public.

They can be used on plumbing fixtures of any manufacture, on either direct or tank supply, and do not require regulating for any pressure between 5 and 100 pounds.

They are noiseless, easy to operate, simple in construction, and have a wide range of operation.

The oscillating handles used on Royal Flush Valves is by far the best method of operating flush valves ever devised, as a slight movement of the handle in any direction causes the valve to flush the full amount it is set for.

Furnished with handle at front or at side or with push button as desired. Price, each

PORCELAIN SINKS



Fig. 35546A

Porcelain Roll Rim Sink with Integral Back and Porcelain Legs with Iron Straps to Wall, Nickel-plated Compression Bibbs with China Indexed Handles, Nickel-plated Open Strainer and Coupling, 1½-inch Nickel-plated P Trap and China Wall Escutcheon, Ash Drainboards for Right and Left-hand Ends, 24 inches long, Hinged to White Painted Iron Wall Brackets.

Size of Sink Outside.....	inches	22x24	22x30	24x36	24x42
Height of Back.....	"	9	9	9	9
Height of Rim to Floor.....	"	36	36	36	36
Depth Inside.....	"	7	7	7	7
Price, as described.....					
" Sink, less Legs and Fittings.....					

Price on porcelain sinks are quoted on kiln run ware. Extra charge is made for special selection.

ENAMELED IRON APRON SINKS

ONE-PIECE

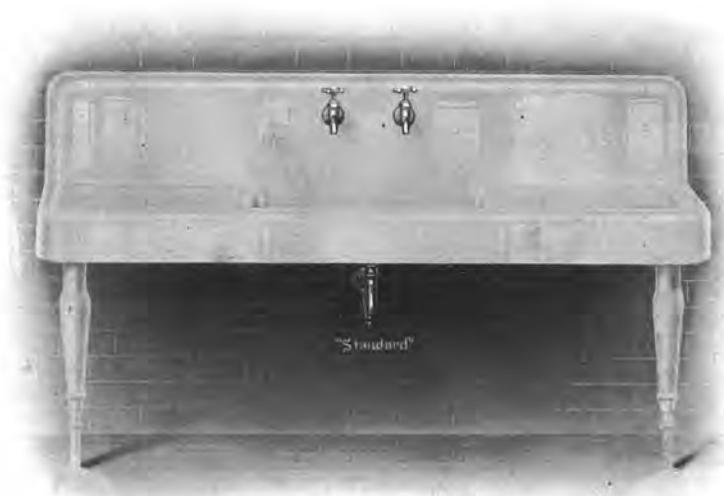


Fig. 9037A

Enameled Iron Apron Sink with Back, Right and Left-hand Drain Boards and Apron all in one piece, Concealed Wall Hangers, Enameled Adjustable Legs, Nickel-plated Compression Flanged Bibbs with China Indexed Handles, Nickel-plated Strainer and 1½-inch Nickel-plated P Trap.

Sizes	Sink Inches	Drain Boards Inches	Back Inches	Apron Inches	Length Over All Inches	Width Over All Inches
20x30	20x26	20x24	12	5½	74½	20¼
22x26	22x22	19x22	12	6	60	22
22x32	22x28	22x25	12	6	78½	22¼

Size.....inches 20x30 22x26 22x32
 Price, as described.....
 " less Fittings.....
 " Extra for Rubber Drain Board Mats.....each
 If with Air Chambers, add.....per pair



Fig. 9037B

The legs that are regularly furnished allow rim of sink to be adjusted from 32 to 36 inches from the floor.

Sink may be furnished with swinging spout faucet as shown herewith instead of bibbs if desired. The faucet has china handles and stream regulating device which delivers a solid, non-splashing stream of water.

ENAMELED IRON APRON SINKS

ONE PIECE



Fig. 9126A

Enamelled Iron Apron Sink with Back, Left-hand Drain Board and Apron all in one piece, Concealed Wall Hangers, Enamelled Adjustable Legs, Nickel-plated Compression Flanged Bibbs with China Indexed Handles, Nickel-plated Strainer, and 1½-inch Nickel-plated P Trap.

Sink Inches	Drain Board Inches	Baek Inches	Apron Inches	Length Over All Inches	Width Over All Inches
20x24	20x20	12	5½	42½	20¼
20x30	20x24	12	5½	52½	20¼
22x36	22x26	12	6	60½	22¼
Size.....			inches	20x24	20x30
Price, as described.....				22x36	
" less Fittings.....					
If with Air Chambers, add, per pair.....					
" " 20x20-inch, Rubber Drain Board Mat, add.....					
" " 20x24 " " " " " "					
" " 22x36 " " " " " "					

Legs that are regularly furnished allow rim of sink to be adjusted from 30 to 36 inches from floor. 20x24-inch size furnished with wall hangers only.

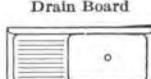


Fig. 9126B

This sink can be furnished with drain board at right or left hand end. In ordering, specify which is wanted.

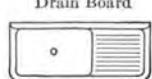


Fig. 9126C

ENAMELED IRON APRON SINKS

ONE PIECE



Fig. 9128A

Enameled Iron Apron Sink with Back, Left-hand End Piece, Right-hand Drain Board and Apron all in one piece, Concealed Wall Hangers, Enameled Adjustable Leg, Nickel-plated Compression Flanged Bibbs with China Indexed Handles, Nickel-plated Strainer and 1½-inch Nickel-plated P Trap.

Sink Inches	Drain Board Inches	Back Inches	Apron Inches	Length Over All Inches	Width Over All Inches
20x24	20x20	12	5½	42¼	20¼
20x30	20x24	12	5½	52¼	20¼
22x36	22x26	12	6	60¼	22¼
Size.....				inches	*20x24 20x30 22x36
Price, as described.....					
" less Fittings.....					
If with 20x20-inch Rubber Drain Board Mat, add.....					
" " 20x24 " " " " "					
" " 22x26 " " " " "					
" " Air Chamber, add.....				per pair	

Leg that is regularly furnished allows rim of sink to be adjusted from 30 to 36 inches from floor. *20x24-inch size furnished without leg.

Right-hand Drain Board
Left-hand End



Fig. 9128B

Left-hand Drain Board
Left-hand End

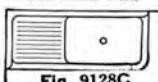


Fig. 9128C

Right-hand Drain Board
Right hand End

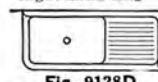


Fig. 9128D

Left-hand Drain Board
Right-hand End



Fig. 9128E

This Sink may be furnished for either Right or Left-hand Corner and with Drain Board at either Right or Left-hand End. In ordering specify which is wanted.

ENAMELED IRON ROLL RIM SINKS

ONE PIECE



Fig. 19824A

Enameled Iron Roll Rim Sink with Back and Right and Left-hand Drain Boards on Concealed Wall Hangers, with Painted Adjustable Legs, Nickel-plated Compression Bibbs, Adjustable Flange, with Four-ball China Index Handles, Nickel-plated Duplex Strainer and 1½-inch Nickel-plated Adjustable P Trap.

Size Inches	Sink Inches	Drain Board Inches	Back Inches	Length Over All Inches	Width Over All Inches
22x26	22x22	22x19	12	60	22

Depth Inside, 6 inches

Price, as described.
" less Fittings.

Add for Enameled Legs instead of Painted, per pair.
" " Galvanized Air Chambers, per pair.
" " Rubber Drain Board Mat, each.

Sink furnished with under side painted white.

The adjustable legs allow rim of sink to be adjusted from 30 to 36 inches from floor.

ENAMELED IRON ROLL RIM SINKS ONE-PIECE



Fig. 9138A

Enameled Iron Roll Rim Sink with Back and Left Hand Drain Board all in one piece, Concealed Wall Hangers, Painted Adjustable Legs, Nickel-plated Compression Flanged Bibbs, Nickel-plated Strainer and $1\frac{1}{2}$ -inch Nickel-plated P Trap.

Sink Inches	Drain Board Inches	Back Inches	Length Over All Inches	Width Over All Inches
20x24	20x20	12	42	20
20x30	20x18	12	46	20
20x30	20x24	12	52	20
22x30	22x24	12	52	22
22x36	22x26	12	60	22
Size of Sink.....	..... inches	20x24	20x30	20x30
" " Drain Board.....	"	20x20	20x18	20x24
Price, as described.....	.....	.....	.....	.....
" less Fittings.....	.....	.....	.....	.....
If with Enameled Adjustable Legs, add, per pair.....	.....	.....	.....	.....
" " 18-inch Rubber Drain Board Mat, add.....	.....	.....	.....	.....
" " 24 " " " " " " " " " " " " .....	.....	.....	.....	.....
" " 26 " " " " " " " " " " " " .....	.....	.....	.....	.....
" " Air Chambers, add per pair.....	.....	.....	.....	.....

Legs that are regularly furnished allow rim of sink to be adjusted from 30 to 36 inches from floor.

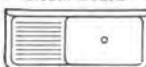
Left Hand
Drain Board

Fig. 9138B

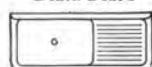
Right Hand
Drain Board

Fig. 9138C

This sink can be furnished with either right or left hand drain board. In ordering, specify which is wanted.

ENAMELED IRON ROLL RIM SINKS ONE PIECE



Fig. 19823A

Enameled Iron Roll Rim Sink with Back, Left-hand End Piece and Left-hand End Drain Board all in one piece, Painted Adjustable Leg, Concealed Wall Hangers, Nickel-plated Compression Bibs with Adjustable Flange and Four-ball China Index Handles, 1½-inch Nickel-plated P Trap and Nickel-plated Duplex Strainer.

Sink Inches	Drain Board Inches	Back Inches	Length Over All Inches	Width Over All Inches
20x30	20x24	12	52	20
20x30	20x18	12	46	20
22x30	22x24	12	52	22
22x36	22x26	12	60	22
Size Sink.....	.....inches		20x30	22x30
" Drain Board.....	"	20x24	20x18	22x24
Price, as described				
" less Fittings				
If with Enameled Leg instead of Painted, add, each				
Add for Rubber Drain Board Mat, 20x24 inches.....				
" " " " " 20x18 "				
" " " " " 22x24 "				
" " " " " 22x26 "				

The legs that are regularly furnished allow rim of sink to be adjusted from 30 to 36 inches from floor.

Left Hand Drain Board
Left Hand End

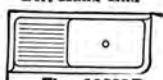


Fig. 19823B

Right Hand Drain Board
Right Hand End

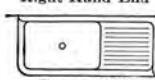


Fig. 19823C

Right Hand Drain Board
Left Hand End

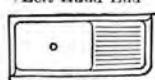


Fig. 19823D

Left Hand Drain Board
Right Hand End

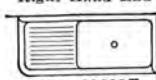


Fig. 19823E

This sink can be furnished for either right or left-hand corner and with either right or left-hand drain board as shown above. In ordering, specify which is wanted.

ENAMELED IRON SINKS

ONE PIECE

APRON SINK WITH BACK AND LEFT
HAND END

Fig. 8703A

ROLL RIM SINK WITH BACK AND LEFT
HAND END

Fig. 8703B

APRON SINKS

Enameled Iron Apron Sink with Back, Left-hand End Piece and Apron all in one piece, Enameled Adjustable Leg, Concealed Wall Hangers, Nickel-plated Compression Flanged Bibbs with China Index Handles, Nickel-plated Duplex Strainer and 1½-inch Nickel-plated P Trap.

	Back 12 inches	Apron 5½ inches	Depth	Inside 6 inches			
Size.....inches	18x30	20x30	20x36	20x40	22x36	22x42	
Price, as Described.....	
" less Fittings.....	
If without Enameled Leg, deduct.....	
If with Air Chambers, add, per pair.....	

This sink can also be furnished with right-hand end piece.

ROLL RIM SINKS

Enameled Iron Roll Rim Sink with Back and Left-hand End all in one piece, Painted Adjustable Leg, Concealed Wall Hangers, Nickel-plated Compression Flanged Bibbs with Tee Handles, Nickel-plated Duplex Strainer and 1½-inch Nickel-plated P Trap.

	Back 12 inches	Depth	Inside 6 inches				
Size.....inches	16x24	18x24	18x30	18x36	20x30	20x36	20x40
Price, as Described.....	.....	.....	.....	.....	.....	.....	.....
" less Fittings.....	.....	.....	.....	.....	.....	.....	.....

If without Painted Leg, deduct.....

This sink can also be furnished with right-hand end piece.

The leg that is regularly furnished with above sinks allows rim of sink to be adjusted from 30 to 36 inches from the floor.

ENAMELED IRON SINKS

ONE PIECE

PATENTED

WITH APRON



Fig. 5139A

ROLL RIM



Fig. 5139B

WITH APRON

Enamelled Iron Roll Rim Sink with 12-inch Back and 5½-inch Apron all in one piece, Concealed Wall Hanger, Compression Adjustable Flange Bibbs, Nickel-plated Strainer and 1½-inch P Trap without Vent.

Size..... inches 18x30 20x30 20x36 20x40 22x36 22x42
 Price, as described.....
 " Less Fittings.....
 If with Painted Adjustable Legs, add per pair ..
 " " Enameled " " "

ROLL BIM

Enamelled Iron Roll Rim Sink with 12-inch Back all in one piece, Concealed Wall Hanger, Nickel-plated Compression Adjustable Flange Bibbs, Nickel-plated Strainer and 1½-inch Nickel-plated P Trap without Vent.

Size	inches	16x24	18x18	18x24	18x30	18x36	20x20	20x24	20x30
Price, as described . . . . .		.....	.....	.....	.....	.....	.....	.....	.....
" Less Fittings . . . . .		.....	.....	.....	.....	.....	.....	.....	.....
Size	inches	20x36	20x40	22x30	22x36	22x42	20x24	22x30	22x36
Price, as described . . . . .		.....	.....	.....	.....	.....	.....	.....	.....
" Less Fittings . . . . .		.....	.....	.....	.....	.....	.....	.....	.....
If with Painted Adjustable Legs, add							per pair	....	....
" " Enameled " " " " "							"	....	....

ENAMELED IRON SINK BACKS
FOR FLAT RIM KITCHEN SINKS

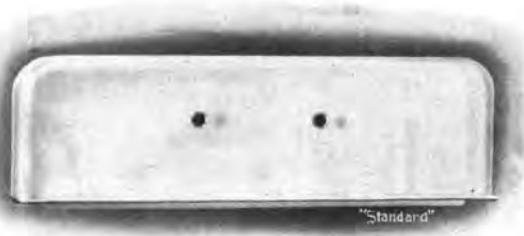


Fig. 2687A

Height 12 inches

Length.....inches	18	20	22	24	30	32	36
Price.....each	4.30	4.60	5.05	5.65	7.25	7.75	8.80
Length.....inches	40	42	48	60	62	72	..
Price .....,each	9.80	10.20	13.05	16.05	16.50	19.10	....

BACK AND END PIECE

Fig. 2687B

Height 12 inches

Width .....,inches	16	18	20	22
Price, End Piece only .....,each	3.80	4.30	4.60	5.05

Above prices to be added to prices of backs.

Illustration shows back with left-hand end piece. When ordering, specify whether right or left-hand end is wanted.

**CAST IRON FLAT RIM SINKS
WITH DUPLEX STRAINER**



Fig. 12855A

OPEN STRAINER



Fig. 12855B

PLUG STRAINER



Fig. 12855C

Size Inches	PRICE, EACH Enamelled	PRICE, EACH Painted	Size Inches	PRICE, EACH Enamelled	PRICE, EACH Painted
12x12	5.45	1.00	20x36	14.35	3.70
12x16	....	1.10	20x38	....	3.80
12x18	7.15	1.25	22x36	15.00	3.80
14x14	....	1.35	20x40	18.80	4.00
14x20	8.50	1.50	20x42	....	4.25
14x24	....	1.70	20x48	....	5.25
16x16	....	1.50	22x42	....	4.75
16x20	....	1.70	24x48	24.65	6.00
16x24	9.15	1.90	24x50	....	7.50
16x28	....	2.10	20x60	44.35	10.00
16x30	....	2.25	24x60	50.70	12.00
18x24	9.70	2.10	22x62	50.70	12.00
18x30	11.60	2.50	20x72	55.75	13.00
18x32	....	2.75	24x72	58.30	15.00
18x36	13.20	3.25	24x84	....	17.00
20x24	10.30	2.40	24x96	....	19.00
20x28	....	2.70	24x120	....	24.00
20x30	12.25	3.00	....	....	....

Enamelled Iron Sinks up to and including 24x48-inch can be furnished with Patent Overflow and Plug Strainer at an extra charge of 2.50.

Painted Iron Sinks can be furnished in all sizes with Patent Overflow and Plug Strainer at an extra charge of 2.00.

DRAIN BOARDS AND MATS

DRAIN BOARDS

**HARDWOOD—INTERCHANGEABLE
WITH ENAMELED END**

ENAMELED IRON—INTERCHANGEABLE



Fig. 8557A

ENAMELED IRON, WITH WALL SUPPORT

Width	inches	16	18	20	22
Price, 18 Inches Long	each	7.00	7.65	8.25	8.90
" 24 " "	"	8.25	8.90	9.50	10.20

HARDWOOD, WITH ENAMELED IRON END

Width	inches	16	18	20	22
Price, 18 Inches Long	each	5.40	5.40	5.65	6.05
" 24 " "	"	6.05	6.05	6.40	6.65

HARDWOOD, PLAIN

Fig. 8557B

HARDWOOD, METAL COVERED

Fig. 8557C



Fig. 8557C

HARDWOOD—PLAIN

Width	inches	18	18	18	18	20
Length	"	18	20	22	24	30
Price	each	3.45	3.75	4.00	4.35	5.50
Width	inches	20	20	20	22	22
Length	"	24	30	36	18	30
Price	each	4.90	5.80	6.30	4.60	5.50

RUBBER MAT

Fig. 8557D

METAL COVERED—For Telescopic Supports

Size Outside	inches	20x30
Price, Tinned Copper	each	60.00
" German Silver	"	80.00

Other sizes to order.

Hinges and supports, extra.



Fig. 8557E

**RUBBER MATS FOR ENAMELED
IRON DRAIN BOARDS**

For Drains Measuring in Width, inches	18	20	22
Price, for Drains 18 Inches Long, each	3.75	4.00	4.25
" " " 24 " " "	4.75	5.00	5.25

BATH AND SINK MATS

CANTSILIP RUBBER BATH MATS

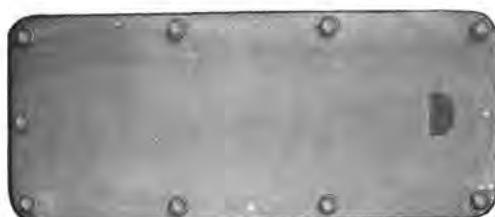


Fig. 13518A

HARDWOOD SINK MATS

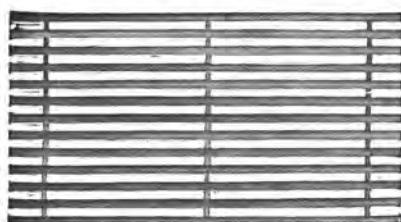


Fig. 13518B

FOR ENAMELED IRON SINKS

For Sink Inches	Price per Dozen	For Sink Inches	Price per Dozen
18x24	7.28	20x30	10.30
18x30	9.50	20x36	14.25
18x36	12.00	22x36	16.35
20x24	8.00	22x42	20.00

FOR PORCELAIN SINKS

22x24	9.30	24x42	22.50
22x30	12.00	26x42	23.80
24x36	18.50	.....	.....

SINK RIM GUARDS



Fig. 13518C

For Sink Length Inches	Price per Sq. Ft.	For Sink Length Inches	Price per Sq. Ft.
20	.60	30	.60
22	.60	36	.60
24	.60	42	.60

These mats are made of fine white rubber with vacuum cups that take a firm grip on the slippery bottom of the tub, while the upper side gives a safe foot-hold. The rectangular mats are for tubs and the square sizes for shower receptors.

Size Inches	Price per Dozen	Size Inches	Price per Dozen
30x15	55.00	36x18	76.50
36x15	66.00	42x18	85.00
42x15	74.00	48x18	102.00
48x15	91.00	.....	.....

HARDWOOD DRAIN BOARD MATS

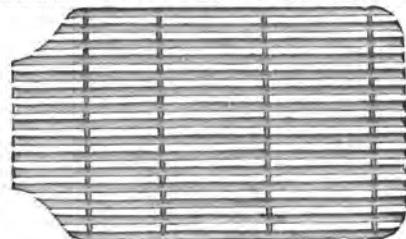


Fig. 13518D

For Drain Board Inches	Price per Dozen	For Drain Board Inches	Price per Dozen
18x18	12.60	18x24	16.00
20x18	14.00	20x24	18.00
22x18	15.50	22x24	19.50

ROLL RIM SINK MATS



Fig. 13518E

FOR ENAMELED IRON SINKS

For Sink Inches	Price per Dozen	For Sink Inches	Price per Dozen
18x24	25.00	20x30	33.75
18x30	30.00	22x36	41.25
18x36	36.00	22x36	48.50
20x24	27.00	22x42	59.50

FOR PORCELAIN SINKS	
For Sink inches Price per dozen	24x36 52.25

SINK FITTINGS

SANITARY SINK FRAME

ADJUSTABLE SINK BRACKET



Fig. 29678A

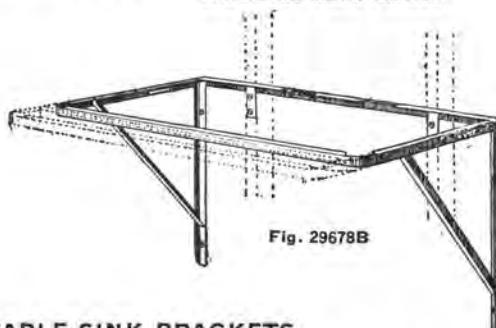


Fig. 29678B

ADJUSTABLE SINK BRACKETS

	1	2	3
Number.....			
For Sinks, Width, up to.....	14	18	24
Price, Plain.....each	.60	.75	1.25
" Galvanized or Enamelled	1.00	1.25	2.00

SANITARY SINK FRAMES

Made of $\frac{3}{4}$ -inch angle iron. Fastens to the wall by clips, which are screwed to studding. Has an adjustment of 3 inches in width.

Price, No. 1, 24 Inches Long, Holds 16x24 or 18x24-inch Sink.....	each	1.50
" 2, 30 " " 16x24-inch Sink or 18x24-inch Sink and Pump.....	each	1.50
Price, No. 3, 30 Inches Long, Holds 18x30 or 20x30-inch Sink.....	"	1.50
" 4, 36 " " 18x30 " 20x30- " Sink and Pump, or 18x36 or 20x36-inch Sink.....	each	1.50

OPEN SINK STRAINER



Fig. 29678C

PLUG SINK STRAINER



Fig. 29678D

SINK COLLAR FOR LEAD PIPE



Fig. 29678E

SINK COLLAR FOR IRON PIPE



Fig. 29678F

SINK STRAINERS

Description.....	Painted	Enamelled	Polished Brass	Brass N. P.
Price, Open Strainers,.....per dozen	1.25	2.25	3.75	4.00
" Plug Strainers....."	3.50	5.00	7.00	8.00
" Extra, if with Bolts and Nuts....."	.50	.50	.50	.50

SINK COLLARS

Price, for $1\frac{1}{4}$ or $1\frac{1}{2}$ -inch Lead Pipe.....	per dozen	1.25
" " $1\frac{1}{4}$, $1\frac{1}{2}$ or 2-inch Iron Pipe.....	"	3.60

BRASS SINK BOLTS



Fig. 29678G



Fig. 29678H

Price, Long, with Two Iron Nuts.....	per dozen	.50
" Short " One " Nut.....	"	.35
Add for Nickel-plated Heads.....	"	.20

COPPER AND NICKEL SILVER PANTRY SINKS

**OVAL
WITH PATENT OVERFLOW AND PLUG**



Fig. 3509A

**SQUARE
WITH PATENT OVERFLOW AND PLUG**



Fig. 3509B

Size.....	inches	12x18	12x20	14x16	14x20	14x24	16x24	16x30	18x30
Price, Oval, Copper.....	each								
" " German Silver.....	"								
" Square, Copper.....	"								
" " German Silver.....	"								

If sinks are wanted without patent overflow and waste plug, deduct....

**SQUARE
WITH STANDING OVERFLOW AND WASTE**



Fig. 3509C

**RECESS
WITH STANDING OVERFLOW AND WASTE**



Fig. 3509D

Size.....	inches	12x18	12x20	14x16	14x20	14x24	16x24	16x30	18x30
Price, Square, Copper.....	each								
" " German Silver.....	"								
" Recess, Copper.....	"								
" " German Silver.....	"								

If waste is wanted silver-plated, add

WITH BACK AND GROOVED WOODEN DRAIN BOARD

Fig. 3509E

Oval or square sinks fitted up with one or two drain boards, back, end pieces or for recess in any size required, covered with copper or German silver. When ordering, give outside measurements, length, width, height of back, length of drain board, size and style of sink. Prices on application.

PORCELAIN PANTRY SINKS
FLAT RIM



Fig. 15996A

Glazed white inside only. Furnished with or without overflow opening.

Size.....	inches	14x20	16x23	17x24	17x28	20x30
Depth Inside.....	"	5	6	6	6	7
Price, Sink only.....						
Add for Waste Plug and Coupling.....						
" " Overflow Grate and Coupling.....						

FLAT RIM WITH END RECESS



Fig. 15996B

Furnished glazed inside only.

Size.....	inches	17x24	17x28	20x30
Depth Inside.....	"	6	6	7
Price, Sink only.....				

 Add for Nickel-plated Standing Overflow and Waste with 1 1/4-inch O.D.

 Tail Piece.....

Measurements of sinks given above do not include the recess.

Prices are for kiln-run. An extra charge will be made for special selection.

ENAMELED IRON WASH SINKS

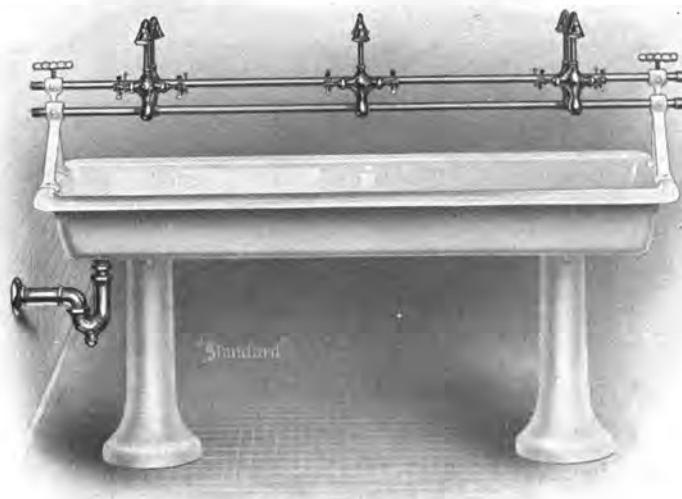


Fig. 41565A

Enameled Iron Roll Rim Wash Sink with End Outlet, on Painted Pedestals with Painted Pipe Supports over Center of Sink, Nickel-plated Compression Double Wash Sink Cocks with Goosenecks and Rose Sprays and Four-ball China Index Handles, $\frac{3}{4}$ -inch Brass Hot and Cold Water Supply Pipes, Nickel-plated Soap Dishes, Nickel-plated Flat Open Strainer and Nickel-plated $1\frac{1}{2}$ -inch Adjustable P Trap.

Sink furnished with under side painted one coat.

Width Over All, 30 inches Height from Floor to Top of Rim, 31 inches

Length.....	feet	4	5	6
Number of Cocks.....		4	6	6
Price, as described.....				
" less Fittings.....				



Fig. 41565B

These sinks may be furnished with faucet as shown herewith, or with various other styles.



Fig. 41565C

PORCELAIN SLOP SINKS



Fig. 16464A

Porcelain Slop Sink on Vitreous China Trap, fitted with Nickel-plated Brass Combination Supply Fitting with Long Nozzle with Wall Brace and Compression Valves with China Indexed Handles and $\frac{3}{4}$ -inch I. P. Size Female Union Couplings with Escutcheons, Nickel-plated Brass Strainer and Trap Connection, China Bolt Caps.

Depth Inside, 12 Inches

Size..... inches 18x22 20x24

Price, as described.....

Also made in Vitreous China, 20x22 in.



Fig. 16464B

This sink can also be furnished with long shank bibbs with integral shut-off as shown in illustration.

Porcelain Slop Sink with Integral Back, on Vitreous China Trap, fitted with Concealed Combination Supply Fitting with $\frac{3}{4}$ -inch I. P. Size Compression Valves with China Indexed Nickel-plated Brass Handles, Escutcheons and Short Nozzle, Nickel-plated Brass Strainer and Trap Connection, China Bolt Caps.

Depth Inside, 12 inches
Back, 12 inches

Size..... inches 20x22 20x24
Price, as described.....



Fig. 16464C

This sink can also be furnished with compression bibbs as shown in illustration.



Fig. 16464D

ENAMELED IRON SLOP SINKS

ROLL RIM



Fig. 29559A

FLUSHING RIM



Fig. 29559B

ROLL RIM

Enamelled Iron Slop Sink, Roll Rim all around, Enamelled Inside S Trap Standard with Cleanout and Nickel-plated Brass Vent to Wall, Nickel-plated Strainer and Compression Combination Supply Fitting with Bucket Hook and Wall Support.

Size.....	inches	16x20	18x22	20x22	20x24
Price, as Described.....		.....	.....	.....	.....
" without Supply Fitting.....		.....	.....	.....	.....

FLUSHING RIM

Enamelled Iron Slop Sink with Trap Standard, Nickel-plated Flushing Rim and Compression Combination Supply Fitting with China Indexed Handles, Supply Pipes and Air Chambers.

Size.....	inches	16x20	18x22	20x22	20x24
Price, as Described.....		.....	.....	.....	.....
" with Brass Rim only.....		.....	.....	.....	.....

ENAMELED IRON SLOP SINKS AND TRAPS

FLAT RIM, ROUND CORNER SLOP SINKS



Fig. 9427A

2-INCH CENTER OUTLET—WITH NICKEL-PLATED STRAINER

Size.....	inches	16x16x10	16x16x12	20x14x12	20x16x12	22x20x12
Enameled Inside.....	each	....	....	....	....	....
Painted In and Out... "	"	....	....	....	....	....
Size.....	inches	23x15x15	24x18x12	24x20x12	30x20x12	36x20x12
Enameled Inside.....	each	....	....	....	....	....
Painted In and Out... "	"	....	....	....	....	....
Size.....	inches	36x21x16	48x20x12	72x20x12	....	....
Enameled Inside.....	each	....	....	....	....	....
Painted In and Out... "	"	....	....	....	....	....
If with 3-inch Outlet, add.....						....

ENAMELED IRON TRAP STANDARDS FOR SLOP SINKS**S Pattern**

**With Cleanout
and Brass Vent.
For Soil Pipe**



Fig. 9427B

**Closed Pattern
With Cleanout
and Brass Vent.
For Lead Pipe**



Fig. 9427C

**Adjustable
With Cleanout.
For Iron Pipe**



Fig. 9427D

Price, S, Closed or Adjustable, Enameled Inside.....	each	....
" S, " " " " All Over.....	"	....

The S traps may also be furnished for lead pipe connection also without vent or with hub vent.

ENAMELED IRON LAUNDRY TRAY AND SINK COMBINATION

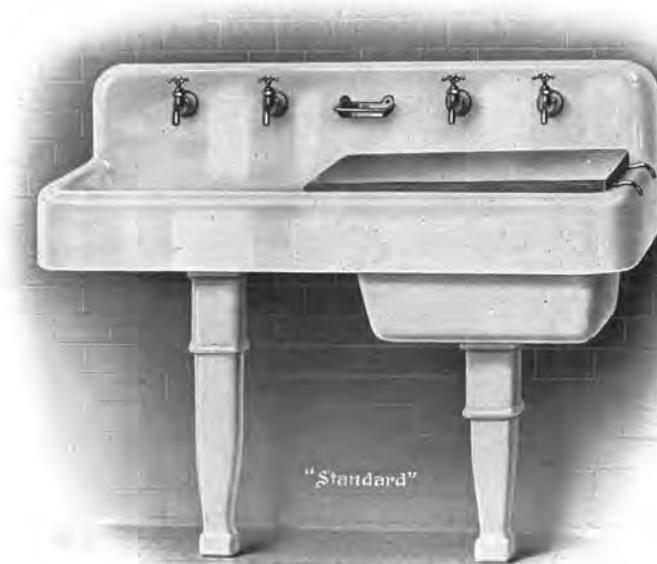


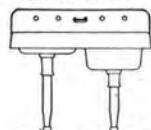
Fig. 2787A

Enameled Iron Laundry Tray and Sink Combination with 6-inch Apron all in one piece, Enameled Iron Adjustable Square Legs under Sink and Tray, Concealed Wall Hangers, Removable Ash Drain Board Cover, Nickel-plated Soap Dish, Nickel-plated Flanged Bibbs with Four-ball China Index Handles, Waste Plugs and Rubber Stoppers.

Sink: Outside $25\frac{1}{4} \times 23\frac{1}{2}$ inches; Inside $21\frac{3}{4} \times 19\frac{1}{4}$ inches; Depth $6\frac{3}{4}$ inches
 Tray: Outside $25\frac{1}{4} \times 23\frac{1}{2}$ inches; Inside $21\frac{3}{4} \times 19\frac{1}{4}$ inches; Depth 14 inches
 Length Over All $50\frac{1}{4}$ inches; Back 8 inches; Floor to Top of Rim 33 inches

Price, as described.....	.....
" Less Bibb.....	.....

Sink at Left



This Combination may be furnished with sink on left hand end as shown or on right hand end.

In order specify whether right or left hand is wanted.

Fig. 2787B

Sink at Right

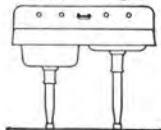


Fig. 2787C

ENAMELED IRON LAUNDRY TRAY AND SINK COMBINATIONS



Fig. 8704A

Enameled Iron Roll Rim Laundry Tray and Sink Combination all in one piece, Concealed Wall Hangers, Painted Iron Adjustable Pedestal and Painted Adjustable Sink Leg, Nickel-plated Compression Flanged Bibbs with 4-ball China Indexed Handles, Nickel-plated Soap Dish, Waste Plugs with Rubber Stoppers and Removable Ash Drain Board and Tray Cover.

Sink: Outside $25\frac{1}{4} \times 23\frac{1}{2}$ inches; Inside $21\frac{3}{4} \times 19\frac{1}{4}$ inches Depth $6\frac{3}{4}$ inches
 Tray: Outside $25\frac{1}{4} \times 23\frac{1}{2}$ inches, Inside $21\frac{3}{4} \times 19\frac{1}{4}$ inches Depth 14 inches
 Length Over All $50\frac{1}{4}$ inches; Back 8 inches; Floor to Top of Rim 33 inches

Price, as described.....
 " less Fittings.....

Sink at Left

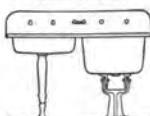


Fig. 8704B

This combination is a useful fixture for apartments, small residences and cottages. When the laundry tray is not in use, the wood cover serves as a drain board for sink.

The combination may be furnished with sink at left-hand as shown or with sink at right. In ordering specify which is wanted.

Sink at Right

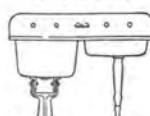


Fig. 8704C

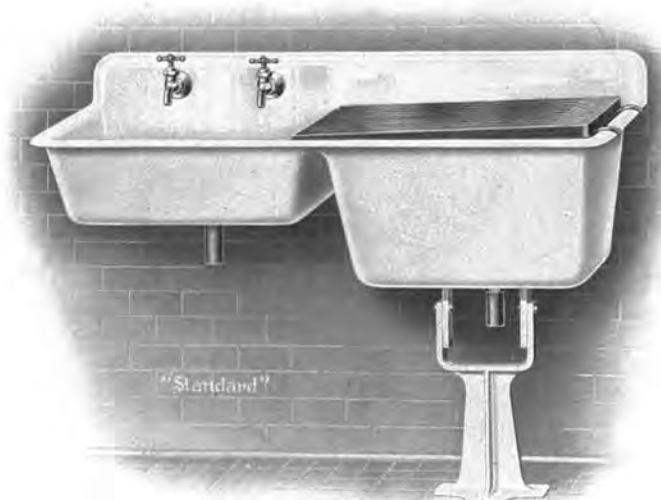
**ENAMELED IRON LAUNDRY TRAY AND
SINK COMBINATIONS**

Fig. 7544A

Enameled Iron Flat Rim Laundry Tray and Sink Combination all in one piece, Painted Adjustable Pedestal Under Tray, Concealed Wall Hanger; Nickel-plated Compression Flanged T Handle Bibbs, Nickel-plated Flat Duplex Strainer, Waste Plug and Rubber Stopper, Loose Ash Drain Board Interchangeable over Sink or Tray.

Sink Outside 23x22 inches
Tray Outside 23x22 inches
Length over all 46 inches

Sink inside 20 $\frac{3}{4}$ x18 $\frac{1}{2}$ inches Depth 7 $\frac{1}{2}$ inches
Tray Inside 20 $\frac{3}{4}$ x18 $\frac{1}{2}$ inches Depth 12 $\frac{3}{4}$ inches
Back 4 inches Floor to Top of Rim 30 to 33 inches

Price, as described

" less Fittings

Furnished with sink at left hand side as shown or at right hand as ordered.

PORCELAIN LAUNDRY TRAYS

ALL ROLL RIM

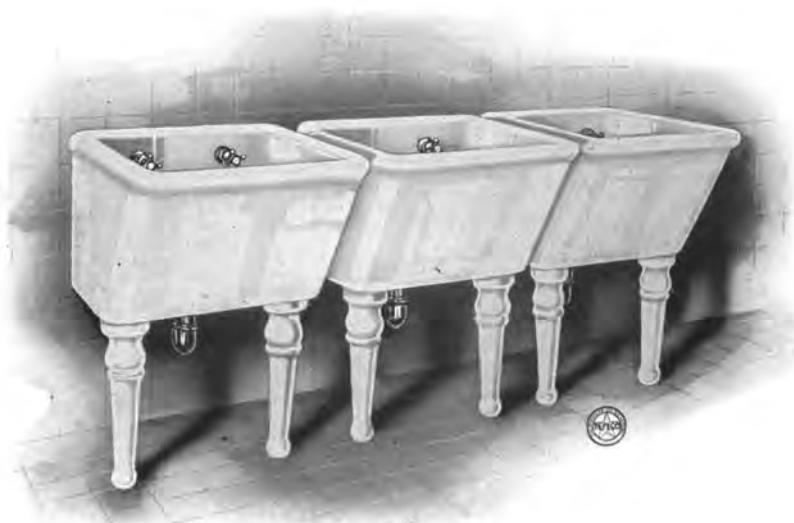


Fig. 3776A

Porcelain Laundry Trays with all Roll Rim, Porcelain Legs with Iron Straps to Wall, fitted with Nickel-plated Compression Wash Tray Bibbs with China Indexed Handles, Nickel-plated Ball Chains, Waste Plugs and Couplings, Nickel-plated P Traps with China Wall Escutcheons.

Height from Floor to Rim, 36 inches

Size.....	inches	24x24	24x26	26x30
Price, as described, Set of Three .....	....	....	....	....
" Tray Only with Legs and Wall Supports.....	....	....	....	....



An ash wringer base as illustrated herewith, may be furnished to go between the tubs at an additional charge.

Prices on porcelain laundry trays are for kiln run ware. An extra charge will be made for special selection.

ENAMELED IRON LAUNDRY TRAYS

ROLL RIM—ONE PIECE

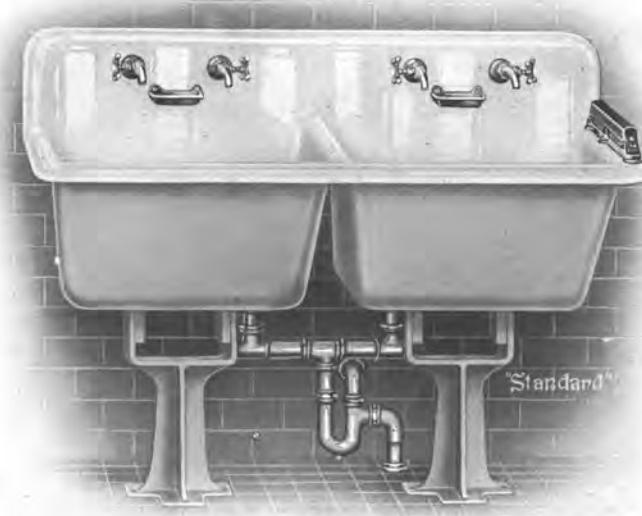


Fig. 7582A

Enameled Iron Roll Rim Two-section Laundry Tray and Back all in one piece, Painted Iron Adjustable Pedestals, Nickel-plated Soap Dishes, Hardwood Wringer Holder on Right-hand End, Nickel-plated Compression Flanged Bibbs with China Indexed Handles, $1\frac{1}{2}$ -inch Nickel-plated Continuous Waste, Waste Plugs and Rubber Stoppers and $1\frac{1}{2}$ -inch Nickel-plated Vented S Trap.

Regularly furnished painted one coat outside.

Front to Back: Inside $21\frac{3}{4}$ inches; Outside, 26 inches Depth Inside, $14\frac{1}{4}$ inches
 Length Over All, 53 inches Length Inside, each Section, 23 inches
 Back, 8 inches Floor to Top of Rim, 31 inches

Price, as described.....

" Less Bibbs, Waste and Trap.....

For additional Wringer Holder, add.....

ENAMELED IRON LAUNDRY TRAYS

ROLL RIM—ONE PIECE

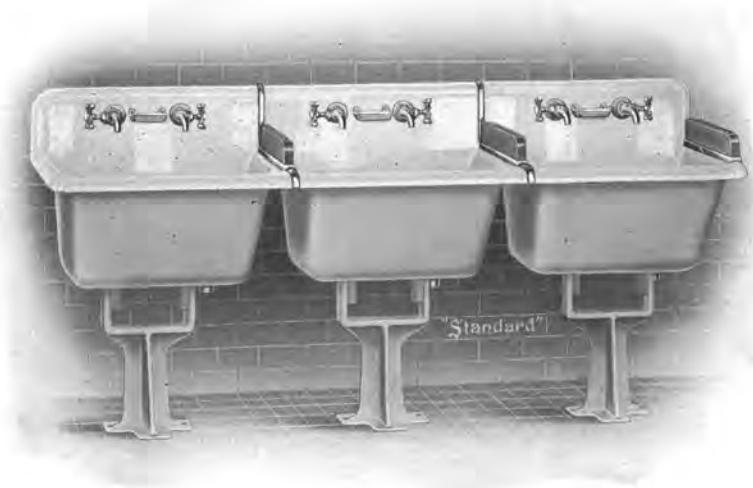


Fig. 7654A

Enameled Iron Roll Rim Laundry Trays, Tray and Back of each Section all in one piece, Painted Iron Adjustable Sanitary Pedestals, Nickel-plated Union Strips with Hardwood Wringer Holders, Nickel-plated Soap Dishes, Nickel-plated Compression Flanged Bibbs with China Index Handles, Waste Plugs with Rubber Stoppers.

Furnished regularly painted one coat outside.

Front to Back: Inside 21 $\frac{3}{4}$ inches; Outside 26 inches Depth Inside 14 $\frac{1}{4}$ inches
 Length Over All, Three Sections, 83 $\frac{3}{4}$ inches Length Inside, each Section, 23 inches
 Back 8 inches Floor to Top of Rim 31 inches

	One-section	Two-section	Three-section
Price, as described
“ less Bibbs
Add for Nickel-plated Continuous Waste, End Outlet and Vented S Trap
If without Wringer Holders, deduct, per Section

ENAMELED IRON LAUNDRY TRAYS

ROLL RIM



Fig. 8719A

Enameled Iron Roll Rim Laundry Trays on Painted Iron Adjustable Pedestals, Nickel-plated Union Strips with Hardwood Wringer Holders, Nickel-plated Compression Stub Pattern Flanged Tray Bibbs with Tee Handles, Waste Plugs with Rubber Stopper and Soap Dishes.

Trays regularly furnished painted one coat outside.

Front to Back: Inside 21 $\frac{1}{4}$ inches; Outside 26 inches Depth Inside 14 $\frac{1}{4}$ inches
 Length Over All, Three Sections, 82 $\frac{1}{2}$ inches Length Inside, each Section, 23 inches
 Floor to Top of Rim 31 inches

	One-section	Two-section	Three-section
Price, as described.....
" less Bibbs.....
Add for Nickel-plated Continuous Waste with End Outlet and Vented S Trap.....
If without Wringer Holders, deduct, per Section.....

ENAMELED IRON LAUNDRY TRAYS

FLAT RIM

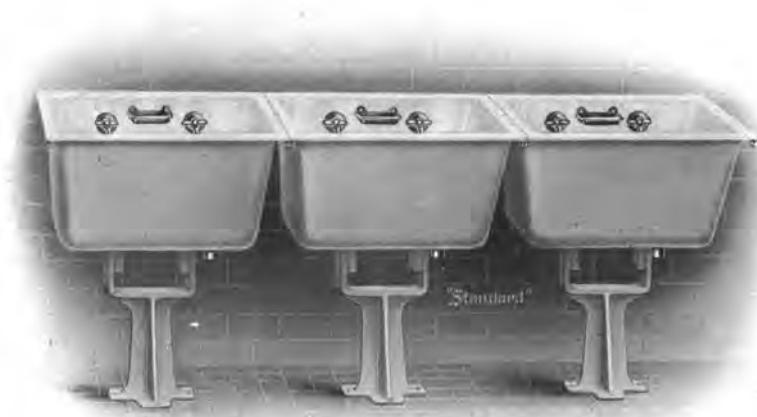


Fig. 2020A

Enameled Iron Flat Rim Laundry Trays with Painted Iron Adjustable Pedestals, Nickel-plated Compression Stub Pattern Flanged Bibbs, Waste Plugs, Couplings, Rubber Stoppers and Nickel-plated Soap Dishes.

Trays regularly furnished painted one coat outside.

Front to Back: Inside 22 inches; Outside 25½ inches Depth Inside 14¼ inches
 Length Over All, Three Sections, 76½ inches Length Inside, each Section, 23 inches
 Floor to Top of Rim 31 inches

	One-section	Two-section	Three-section
Price, as described.....	.....	.....	.....
" less Bibbs.....	.....	.....	.....
Add for 1½-inch Continuous Waste, End Outlet and 1½-inch Vented Trap.....	.....	.....	.....
Add for Nickel-plated Union Strips.....	per section	.....	.....
" " " " " with Wringer Holders.....	"	.....	.....
" " Wood Covers.....	"	.....	.....

ENAMELED IRON LAUNDRY TUBS

FLAT RIM



Fig. 7675A

Enameled Iron Flat Rim Laundry Trays with Center Waste Outlet on Painted Iron Adjustable Pedestals, Hardwood Wringer Holders bolted to rim, Compression Flanged Bibbs with Tee Handle, Waste Plugs and Rubber Stoppers.

Regularly furnished painted one coat outside.

Pedestal regularly furnished allows adjustment of 3 inches higher.

Front to Back: Inside 19 inches; Outside 22 $\frac{3}{4}$ inches; Depth 13 $\frac{1}{4}$ inches
 Length Over All, Three Sections, 72 $\frac{3}{4}$ inches Length Inside, each Section, 21 $\frac{1}{4}$ inches
 Floor to Top of Rim 30 $\frac{1}{4}$ inches

No. of Sections.....	1	2	3
Price, as Described.....
" without Bibbs.....
If with 1 $\frac{1}{2}$ -inch N. P. Continuous Waste and Vented S Trap, add			
For Each N. P. Union Strap with Hardwood Wringer Holder			
between tray, add.....

GRANITINE LAUNDRY TRAYS



Fig. 5721A

These trays are made by a process of cement waterproofing of Portland cement and crushed granite stone. The cement waterproofing presents a superior gray color and a very smooth surface. They are made in one piece with rounded inside corners, without seams or joints, thus rendered sanitary and easy to keep clean. Trays are furnished with metallic rim, metallic wringer guard, stoppers and waste connection. Twin waste connection is furnished for two-part trays.

ONE PART, WITHOUT BACK

No.	Length Inches	Width Inches	Depth Inches	Price Each
2	25	24	16	....
3	27	24	16	....
4	31	24	16	....

TWO PART, WITHOUT BACK

6	48	24	16	....
7	54	24	16	....
8	60	24	16	....

TWO PART, WITH 6-INCH BACK

106	48	24	16	....
107	54	24	16	....
108	60	24	16	....

THREE PART, WITHOUT BACK

10	72	24	16	....
11	80	24	16	....
12	90	24	16	....

THREE PART, WITH 6-INCH BACK

110	72	24	16	....
111	80	24	16	....
112	90	24	16	....

ALBERENE STONE LAUNDRY TRAYS
WITHOUT BACK



Fig. 11325A

	Width Outside 24 inches	Length.....feet	Depth Outside 16 inches	2	2½	3	4	4½	5
Price, Two-part, Tray Only.....			
" One " "			

WITH BACK

Fig. 11325B

	Width Outside 24 inches	Length.....feet	Depth Outside 16 inches	4	4½	5
Price, Two-part Tray Only, 6 inch Back.....			
" " " " " 12 " "			
" " " " " 16 " "			

EXTRAS

Legs: Painted each, . . . ; Galvanized each, Soap Dishes, each,
 Waste Plugs: Plain each, . . . ; with Locknut and Coupling each,
 Twin Waste,

LAUNDRY TRAY STANDS AND FITTINGS
STEEL ADJUSTABLE LAUNDRY TRAY FRAMES



Fig. 1325A

No.	Length Inches	For Tray 2-part	Price Each	No.	Length Inches	For Tray 3-part	Price Each
2	42		3.00	3	60		4.00

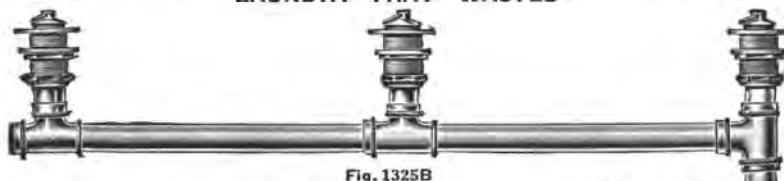
LAUNDRY TRAY WASTES

Fig. 1325B

Price, Rough Brass, 1½-inch, 27½ Inches C to C..... each
 " Fin. or N.P. 1½ " 27½ " C " C..... "

Two-part	Three-part	Four-part
2.85	4.15	5.45
3.60	4.90	6.20

NEVER-TIP LAUNDRY TRAY LEGS**No. 181 WASH TRAY PLUGS**

Fig. 1325C

Height Inches	Width Inches	PRICE, EACH	
15½	16¼	Painted	Galv.
		1.20	2.00

No. 180 WASH TRAY PLUGS

Fig. 1325E

Price, Polished Brass..... each .80



Fig. 1325D

Price, Polished Brass..... each .50

GALVANIZED SOAP DISH FOR LAUNDRY TRAYS

Fig. 1325F

Price..... each .50

BATH ROOM FURNISHINGS

WHITE ENAMELED WOOD MEDICINE CABINETS
RECESS

WALL PATTERN



Fig. 5988A

No. 1201

White Enameled Finish, Beveled Glass Mirror 12x18 Inches, Three Plate Glass Shelves, Friction Catch and Glass Knob.

Recess measurements: Height, 23 $\frac{5}{16}$ inches; width, 17 $\frac{5}{16}$ inches; depth, 4 $\frac{7}{16}$ inches.

Price each

ENAMELED STEEL CABINETS
Recess Pattern


Fig. 5988C



Fig. 5988B

No. 1301

White Enameled Finish, Beveled Glass Mirror 12x18 Inches, Three Plate Glass Shelves, Friction Catch and Glass Knob.

Height, 23 $\frac{1}{4}$ inches; width, 17 $\frac{1}{4}$ inches; depth, 5 $\frac{3}{4}$ inches.

Price each

No. 1302

Beveled Glass Mirror 10x14 Inches, Two Plate Glass Shelves, Friction Catch and Glass Knob.

Height, 19 $\frac{1}{2}$ inches; width, 15 $\frac{1}{2}$ inches; depth, 5 $\frac{3}{4}$ inches.

Price each

ENAMELED STEEL CABINETS

RECESS PATTERN

White Enameled Baked Finish, Beveled Plate Glass Mirror, Adjustable Glass Shelves and Porcelain Knobs.

No.	Dimensions Over All Inches	No. of Shelves	Price Each
1901	23 $\frac{1}{2}$ x19 $\frac{1}{2}$ x4 $\frac{1}{4}$	2	.....
1902	27 $\frac{1}{2}$ x21 $\frac{1}{2}$ x4 $\frac{1}{4}$	3	.....

WALL TYPE

White Enameled Baked Finish, Plate Glass Mirror, Adjustable Glass Shelves, Porcelain Knob.

1801	20 x16 x4 $\frac{1}{4}$	2	.....
1803	22 x18 x4 $\frac{1}{4}$	2	.....
1804	26 x20 x4 $\frac{1}{4}$	3	.....

BATH ROOM FURNISHINGS

BEVEL PLATE GLASS MIRRORS

WHITE STEEL FRAME

 $\frac{5}{8}$ INCH WIDE

Fig. 37455A

NICKEL-PLATED BRASS FRAME

 $\frac{3}{8}$ INCH WIDE

Fig. 37455B

Size Glass Inches	PRICE, EACH	
	Sanoid Finish Frame with Bevel Glass	White Enamel Frame with Plain Glass
12x18	11.00	7.50
14x20	13.50	10.00
16x24	18.50	14.00
18x28	24.00	18.00

Size Glass Inches	Price, Ea.		Size Glass Inches	Price, Ea.	
	Nickel- plated	French Plate Glass		Nickel- plated	French Plate Glass
12x18	9.50	18x28	22.00		
14x20	12.00	20x30	26.00		
16x24	18.00				

Fitted with Best Quality French Plate Glass.

WHITE WOOD FRAME
OVAL

Fig. 37455C

WHITE WOOD FRAME
ROUND CORNERED

Fig. 37455D

Size Glass Inches	Width Inches	PRICE, EACH	
		Sanoid Finish	White Enamel
12x18	1	9.50	8.00
14x20	1 $\frac{1}{4}$	12.50	10.50
16x24	1 $\frac{3}{8}$	18.00	16.00
18x28	1 $\frac{1}{2}$	23.00	20.00
20x30	1 $\frac{1}{2}$	27.00	23.00

Size Glass Inches	Width Inches	PRICE, EACH	
		Sanoid Finish	White Enamel
12x18	1	9.50	8.00
14x20	1 $\frac{1}{4}$	12.50	10.50
16x24	1 $\frac{3}{8}$	18.00	16.00
18x28	1 $\frac{1}{2}$	23.00	20.00
20x30	1 $\frac{1}{2}$	27.00	23.00

Sanoid Finish frames are fitted only with the best quality French Plate Glass; White Enamel Frames with Commercial Quality Glass.

EASY SET CHINA BATH ROOM FURNISHINGS WITH CONCEALED SCREW

PATENTED JULY 16, 1918

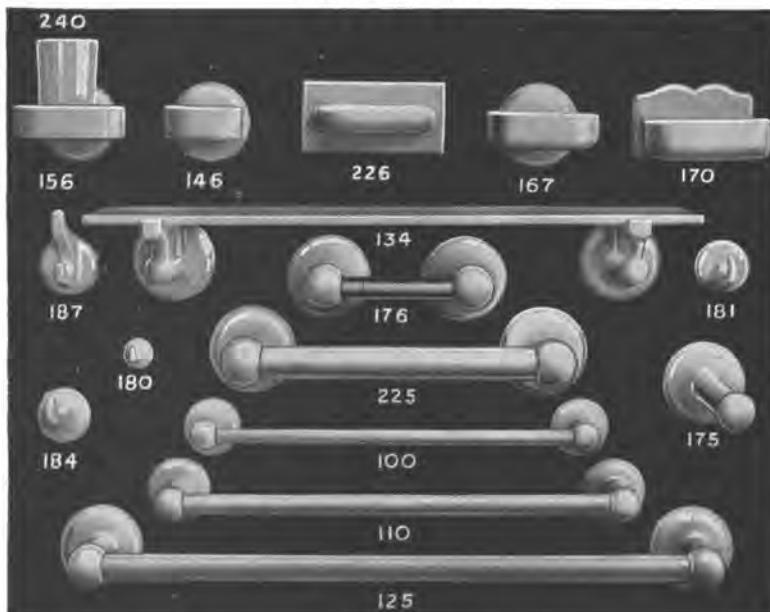
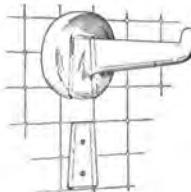


Fig. 5130A



The fittings are fastened to the wall by means of a bevel plate which is screwed to wall and over which the fitting is slipped in place. No screws are visible.

The illustration at the right shows a top view of the No. 156 tumbler and toothbrush holder.

**OPAL TOWEL BARS**

Length, Inches	15	18	24	30	36	PRICE, EACH
No. 100.	1 1/2-in.	1.50	1.60	1.90	2.40	
" 110.	1 3/4 " "	2.40	2.60	2.90	3.20	3.70
" 125.	1.1 "	3.50	3.70	4.30	5.00	5.80
No. Description						Price, Each
146 Tumbler Holder						1.60
156 " and Toothbrush Holder						2.00
167 Soap Holder						1.90
168 " " with Drain Holes						2.00
170 Large Soap Holder						2.30
171 " " " with Drain Holes						2.40
175 Toilet Paper Holder or Individual Towel Rack						1.10
176 Toilet Paper Holder with Nickel-plated Spring Roller						3.30

OPAL SHELVES, 5 INCHES WIDE

Length, Inches	18	24	30	36	PRICE, EACH
No. 134.	5 1/2-in.	5.10	5.80	6.70	8.00
" 1348.	7 1/2 " "	5.90	6.80	8.10	9.60
No. Description					Price, Each
180 Wash Cloth or Water Bag Hook . . . . .					.50
181 Razor Strop or Shower Curtain Hook . . . . .					.60
184 Single Robe Hook . . . . .					.60
187 Double Hook					1.00
225 Hand Rail, 1 1/4x 9-inch					4.30
225 " " 1 1/4x12 "					4.80
225 " " 1 1/4x16 "					5.50
226 " " 6 x 3 " 1 Piece					2.70
240 Opal Tumbler . . . . .					.50

BATH ROOM FURNISHINGS

TILE-IN VITREOUS CHINA

No. 951 Soap Dish



Fig. 5388A

No. 952 Soap Dish



Fig. 5388B

Price, No. 951, 3x6-in. Plain...ea. 3.00
 " " 952, 3x6 " with Lip " 3.00

No. 965 PAPER HOLDERS

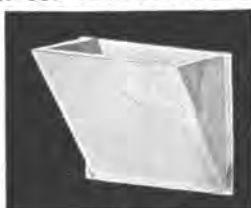


Fig. 5388C

Price, 6x6 Inches.....each 6.00

No. 970 SHELVES



Fig. 5388D

For use above lavatory.

Size, 6x12 inches with 4½-inch shelf.
 Price.....each 12.00

VITREOUS CHINA FITTINGS

PEDESTAL SOAP DISHES



Fig. 5388E

Vitreous China Octagonal Pattern
 Lipped Pedestal Soap Dish to Fit in
 Lavatory Cock Hole.
 Price.....each 3.00

TILE-IN VITREOUS CHINA

No. 954 Soap Dish



Fig. 5388F

No. 956 Soap Dish



Fig. 5388G

Price, No. 954, 6x6 in. Plain...ea. 4.00
 " " 955, 6x6 " with Lip " 4.00
 " " 956, 6x6 " with Grab " 5.00
 " " 957, 6x9 " Plain " 10.00
 " " 958, 6x9 " with Grab " 10.00

No. 967 Hook



Fig. 5388H

No. 968 Hook



Fig. 5388J

Price, No. 967 Hook, 3x3-in. Tile.ea. 1.00
 " " 968 Large Towel Hook,
 3x3-inch, Tile.....each 1.20

OPAL SHELVES WITH CHINA
BRACKETS

Fig. 5388K

No.	Size, Shelf Inches	Size, Bracket Inches	Price Each
976	18x5	3x3	11.00
977	24x5	3x3	12.00
978	30x5	3x3	13.00

VITREOUS CHINA FITTINGS

No. 995
Chain Stay

Fig. 5388L

No. 997
Cock Hole Cover

Fig. 5388M

Price, No. 995 Chain Stay, 1¾-inch
 Diameter.....each 1.00
 Price, No. 997 Cock Hole Cover " 1.00

BATH ROOM FURNISHINGS
VITREOUS CHINA
No. B66 TOWEL BAR

**Fig. 14525A**

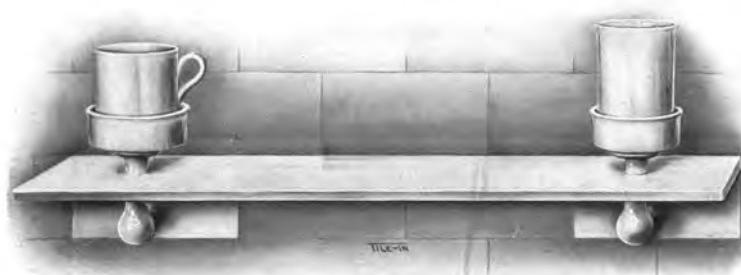
Backs 6x3 inches Round Bar 1-inch Diameter

Length of Bar.....	.....inches	18	24	30	36
Price.....	each	5.50	5.80	6.50	7.20

No. B68 SHELF**Fig. 14525B**

Backs 6x3 inches Opal Shelf 5 inches Wide

Length of Shelf.....	.....inches	18	24	30	36
Price.....	each	6.30	7.20	7.90	8.80

No. B69 SHELF COMBINATION**Fig. 14525C**

Backs 6x3 inches Opal Shelf 5 inches Wide

Length of Shelf.....	.....inches	18	24	30	36
Price.....	each	11.20	11.70	12.40	13.30

BATH ROOM FURNISHINGS

TOWEL BARS

No. 11



Fig. 5350A

Length.....	inches	9	12	16	18	24	30
Price, with $\frac{1}{2}$ inch Tubing.....	each	.80	.90	1.00	1.10	1.25	1.50

SOLID BRASS, No. 15



Fig. 5350B

Length.....	inches	18	24	30	36
Price, with $\frac{5}{8}$ inch Tubing.....	each	1.95	2.40	2.85	3.30

No. 691, CRYSTAL GLASS



Fig. 5350C

Length.....	inches	18	24	30	36
Price, with 1-inch Bar.....	each	4.15	4.85	5.55	6.25

No. 692, OPAL GLASS



Fig. 5350D

Length.....	inches	18	24	30	36
Price, with 1-inch Bar.....	each	4.85	5.55	6.25	6.95

No. 569, GLASS



Fig. 5350E

Length.....	inches	18	24	30
Price, $\frac{5}{8}$ inch Glass Bar.....	each	1.95	2.40	2.85

Nickel-plated brass screws are furnished with all fittings where required.

BATHROOM FURNISHINGS

GLASS SHELVES

WITH NICKEL-PLATED BRASS BRACKETS



Fig. 12777A

Size.....	inches	5x18	5x20	5x24	5x27	5x30
Price, $\frac{3}{8}$ -inch Crystal.....	each	4.55	4.70	4.95	5.30	5.50
" $\frac{7}{16}$ " Opal.....	"	5.65	6.00	6.40	7.15	7.75



Fig. 12777B

Size.....	inches	5x18	5x20	5x24	5x27	5x30
Price, $\frac{3}{8}$ -inch Crystal.....	each	5.65	5.75	6.10	6.40	6.65
" $\frac{7}{16}$ " Opal.....	"	6.75	7.15	7.70	8.30	8.85



Fig. 12777C

Size.....	inches	5x18	5x20	5x24	5x27	5x30
Price, $\frac{3}{8}$ -inch Crystal.....	each	4.55	4.70	4.95	5.30	5.50
" $\frac{7}{16}$ " Opal.....	"	5.65	6.00	6.40	7.15	7.75



Fig. 12777D

Size.....	inches	5x18	5x24	5x30
Price, with Nickel-plated Brackets.....	each	2.70	2.90	3.30



Fig. 12777E

Size.....	inches	5x18	5x24
Price, with Nickel-plated Brackets.....	each	2.70	2.90

BATHROOM FURNISHINGS

COMBINATION TUMBLER
HOLDERS
WITH REMOVABLE SOAP TRAY

Fig. 18125A

Price.....per dozen 32.00

COMBINATION TUMBLER
HOLDERS
WITH OPEN SOAP TRAY AND TUMBLER

Fig. 18125B

Price.....per dozen 27.00

TUMBLER HOLDERS

WITH TOOTH
BRUSH HOLDER

PLAIN



Fig. 18125C



Fig. 18125D

Price, Plain.....per dozen 9.00
" with Tooth Brush Holder " 11.00

OPAL TUMBLERS



Fig. 18125E

Price.....per dozen 2.25

ROBE HOOKS



Fig. 18125F

Fig. 18125G

Fig. 18125H

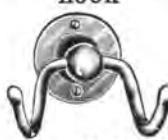
Price, One-prong, N. P. Brass.....per dozen 1.50
" Two " " " " 4.00
" Three " " " " 5.00DOUBLE ROBE
HOOK

Fig. 18125J

RAZOR STROP
HOOK

Fig. 18125K

Price, Double Robe Hooks, per doz. 8.90
" Razor Strop " 1.50

TOILET PAPER HOLDERS

No. 2



No. 1



Fig. 18125L

Price, No. 1, N. P.per dozen 4.80
" " 2, " " " " 13.00TOILET PAPER HOLDERS
WITH LOCKING ROLL

Fig. 18125M

Price.....per dozen 16.00

BATH ROOM FURNISHINGS

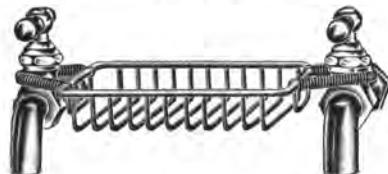
SOAP DISH WITH COIL SPRING
HANGERS

Fig. 30096A

LIQUID SOAP HOLDERS



Fig. 30096B

Price, Nickel-plated.....each 2.00

Price each 3.25

May be furnished in other styles. Information and prices upon application.

BATH ROOM SCALES

The tall iron pillar is surmounted by a full capacity beam on a level with the user's eye and free from shadow, so as to be easily read. This beam has the full $300 \times \frac{1}{4}$ pounds capacity upon its bars, doing away with loose weights which may drop and break or injure floor or toes. The scale may be furnished with an accurate, adjustable measuring rod for giving personal height, graduated from 2 feet 6 inches to 6 feet 6 inches by $\frac{1}{4}$ inch for children as well as adults. Beam and measuring rod may be graduated to metric or other standards, if desired. The finish is in elegant white enamel, with arrow-tip beam, sliding poises and measuring rod, all of polished nickel-plated brass. Rubber mat for platform may be furnished at an additional price.



Fig. 30096C

No.	Description	Capacity	Platform Inches
1263	Without Measuring Rod	$300 \times \frac{1}{4}$ Pounds	$10\frac{1}{2} \times 14$
1265	With " "	$300 \times \frac{1}{4}$ "	$10\frac{1}{2} \times 14$

BEAM GRADUATIONS.—Upper bar, $50 \times \frac{1}{4}$ pounds; lower bar, 250×50 pounds.

MEASURING ROD.—2 feet 6 inches to 6 feet 6 inches by $\frac{1}{4}$ inch.HEIGHT.—Floor to tip of beam, $58\frac{1}{2}$ inches.

Prices on application.

HEALTH-O-METER

The Health-O-Meter is one of the latest designs in this type of scale; thorough construction all through, with hardened bearings, rack and pinion, made of best quality steel. Equipped with special regulating screw for close adjustment. Cork mat inlaid in platform acts as an insulator to the bare feet. The finish is pure white of the best heavy oven baked enamel.

Capacity 250 pounds by 1 pound graduations.

Platform, 7x11 inches. Height 5 inches.
Weight 20 pounds. Packed, 30 pounds.
Price each ...

Fig. 30096D

QUATURN CLASSIC SINK FAUCETS



Fig. 301A

B-200 QUATURN CLASSIC SINK FAUCETS
WITH SOAP DISH

Nickel-plated Quaturn Classic Swing Spout Sink Faucet with China Index Handles and Self-draining Soap Dish. With $\frac{1}{2}$ or $\frac{3}{4}$ -inch I. P. Female Threads.

The distance between inlet is adjustable from 4 to $8\frac{1}{8}$ inches, 4 to $10\frac{1}{8}$ in. and 4 to $12\frac{1}{8}$ inches. Extends into sink 3 inches. Spout has a radius of 6 inches and can be pushed back out of the way, but will not strike against back of sink.

Price, 8-inch Centers.....	each	20.00
" 10 " "	"	21.75
" 12 " "	"	23.00

B-100 QUATURN CLASSIC SINK FAUCETS

Nickel-plated Quaturn Classic Swing Spout Sink Faucet with China Index Handles and $\frac{1}{2}$ or $\frac{3}{4}$ -inch I. P. Female Threads.

Price, 8-inch Centers.....	each	15.00
" 10 " "	"	16.75
" 12 " "	"	18.00



Fig. 301B



QUATURN REPAIR PARTS

Part No.	Description	Price Each
1-14	Cap.....	.35
1-15	R. H. Stem.....	.40
1-16	L. H. "	.40
1-17	Handle Screw.....	.02
1-18	Stem Nut.....	.04
1-19	Conical Packing Washer.....	.05
1-20	Brass "	.02
1-21	Seat Washer.....	.02
1-22	Washer Retainer.....	.04
1-27	Seat.....	.04
1-28	L. H. Sleeve.....	.35
1-29	R. H. "	.35
1-31	Stem Nut Washer.....	.01
1-99	R. H. Unit.....	1.25
1-100	L. H. "	1.25

Quaturn Repair Parts are standardized—one working unit fits all Quaturn Bath Cocks, Basin Cocks, Sink Faucets and Bibbs.

SINK AND LAUNDRY TRAY FAUCETS

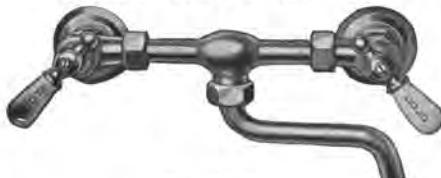
No. 522 QUICK COMPRESSION DOUBLE SINK FAUCETS

Fig. 1963A

Furnished with solid female flange.
Price, Nickel-plated.....each 10.00

No. 521 QUICK COMPRESSION DOUBLE SINK FAUCETS

Fig. 1963B

Furnished with solid female flange.
Price, Nickel-plated.....each 13.00

No. 521 QUICK COMPRESSION DOUBLE SINK FAUCETS WITH SOAP DISH

Fig. 1963C

With china handles and soap dish.
Price, Nickel-plated.....each 16.75

No. 421 QUICK COMPRESSION DOUBLE SINK FAUCETS

Fig. 1963D

Eccentric coupling attached take care
of any slight variation in roughing-in
measurements.
Price, Nickel-plated.....each 13.00
Add for Aluminum Soap Dish " 3.75

No. 422 QUICK COMPRESSION DOUBLE SINK FAUCETS

Fig. 1963E

Similar to No. 421 except somewhat
smaller and has two points of adjustment
for difference in roughing-in. Male and
female inlets.
Price, Nickel-plated.....each 10.00

No. 420 COMBINATION LAUNDRY TRAY BIBBS

Fig. 1963F

Eliminates pipe and special fittings and
forms a rigid support.
Price, Nickel-plated.....each 6.50

SINK FAUCETS, BASIN COCKS, STOPS, ETC.**COMBINATION SINK BIBB WITH
SOAP CUP AND SPRAY
ATTACHMENT**

Fig. 7156A

Nickel-plated Combination Quick Compression Swing Spout Sink Faucet with Control Valve for Tempered Water, $\frac{1}{2}$ -inch Female Flanges with Eccentric Couplings, China Handles, Nickel-plated Soap Dish, Rubber Hose and Spray.

Price each 24.00

**INDEPENDENT COMPRESSION
STOP AND WASTE COCKS**

Fig. 7156B

Red fibre disc suitable for hot or cold water. An excellent compression stop for use wherever a rough stop is desirable.

Size inches $\frac{1}{2}$ $\frac{3}{4}$
Price per dozen 29.40 35.40

**QUICK COMPRESSION BASIN
COCKS WITH CHINA TOP HANDLE**

Fig. 7156C

Price, Nickel-plated per dozen 54.00

**DOHERTY SELF-CLOSING
URINAL COCKS
S. O. T.**

Fig. 7156D

Size .....	..... inches	$\frac{1}{2}$
Price, Finished	per dozen	42.60
" Nickel-plated	"	48.60

**COMBINATION COMPRESSION
SILL COCKS
KEY WHEEL**

Fig. 7156E

By removing the screw the cock is converted into a loose key sill cock.

Made rough body nickel-plated only.

Size .....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price	per dozen	34.80	34.80

COMPRESSION STOP COCKS

FOR IRON PIPE

WITH FOUR-BALL CHINA INDEX
HANDLE

Straight



Fig. 41558A

Angle



Fig. 41558B

WITH SLIP JOINT ENDS

WHEEL HANDLE AND STUFFING BOX

Straight



Fig. 41558C

Angle



Fig. 41558D

PRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	PLAIN CAP		WITH S. Box		Size Inches
	Finished	N. P.	Finished	N. P.	
3/8	25.20	28.80	29.40	33.00	3/8
1/2	28.80	32.40	33.60	37.20	1/2
5/8	33.60	37.20	39.00	42.60	5/8
3/4	41.40	45.60	47.40	51.60	3/4

PRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	Finished	Nickel-plated
3/8	19.20	22.80
1/2	24.60	28.20
5/8	34.20	37.80
3/4	43.80	48.00

WITH BRASS WHEEL HANDLE

PRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	PLAIN CAP		WITH S. Box		Size Inches
	Finished	N. P.	Finished	N. P.	
3/8	21.00	24.60	25.20	28.80	3/8
1/2	25.20	28.80	30.00	33.60	1/2
5/8	31.20	34.80	36.60	40.20	5/8
3/4	40.20	44.40	46.20	50.40	3/4
1	84.00	90.00	94.80	100.80	3/4

WITH FOUR-BALL CHINA INDEX
HANDLEPRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	Fin- ished	Nickel- plated	Add for S. Box
3/8	28.20	31.80	4.20
1/2	33.60	37.20	4.80
5/8	42.60	46.20	5.40
3/4	52.20	56.40	6.00

WITH T HANDLE

PRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	Rough	Finished	N. P.	Add for S. Box	Size Inches
3/8	14.40	16.20	19.80	4.20	3/8
1/2	17.40	19.80	23.40	4.80	1/2
5/8	22.80	25.20	28.80	5.40	5/8
3/4	30.60	33.00	37.20	6.00	3/4
1	54.00	60.00	66.00	10.80	3/4

WITH T HANDLE

PRICE, STRAIGHT OR ANGLE
PER DOZEN

Size Inches	Fin- ished	Nickel- plated	Add for S. Box
3/8	19.20	22.80	4.20
1/2	24.60	28.20	4.80
5/8	34.20	37.80	5.40
3/4	43.80	48.00	6.00

STOP AND WASTE COCKS AND VALVES

COMPRESSION STOP AND WASTE COCKS

REPUBLIC



Fig. 37849A

PARAGON AUTOMATIC



Fig. 37849B

REPUBLIC

The waste on this cock is controlled by a thumb screw, which cannot be removed or lost. Heavy and well proportioned with raised seat and encased seat washer.
 Size..... inches $\frac{1}{2}$ $\frac{3}{4}$ $\frac{3}{4}$ 1
 Price, Rough..... per dozen 29.40 35.40 43.80 76.80

PARAGON AUTOMATIC

The waste vent is closed by vent pin held tightly in place by the water pressure and a spring is employed simply to keep the vent pin in proper location. The water pressure holds the pin over the waste opening until, when closing the valve, the last turn of the handle automatically engages the vent pin and allows the valve to waste.
 Size..... inches $\frac{1}{2}$ $\frac{5}{8}$
 Price, Rough..... per dozen 29.40 35.40

REPUBLIC COMPRESSION VALVES

GLOBE VALVE
IRON WHEEL HANDLE

Fig. 37849C

ANGLE VALVE
IRON WHEEL HANDLE

Fig. 37849D

These are high-grade valves with large waterway, heavy raised seat and encased removable disc.

GLOBE VALVES

Size.....	inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1
Price, Wheel Handle.....	per dozen	.77	1.00	1.26	1.80
" Lock Shield.....	"	1.28	1.53	1.78	...

ANGLE VALVES

Size.....	inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1
Price, Wheel Handle.....	per dozen	.77	1.00	1.26	1.80
" Lock Shield.....	"	1.28	1.53	1.78	...

SILL COCKS, WASH TRAY BIBBS, ETC.

COMPRESSION SILL COCKS

LOOSE KEY



Fig. 38734A

Size Inches	PRICE, PER DOZEN—		
	Rough N.P.	Fin. Brass	Fin. and N.P.
1/2	34.80	34.80	38.40
3/4	34.80	34.80	38.40

COMPRESSION SILL COCKS

WHEEL HANDLE



Fig. 38734D

Size Inches	PRICE, PER DOZEN—		
	Rough N. P.	Fin. Brass	Fin. and N. P.
1/2	30.00	30.00	33.60
3/4	30.00	30.00	33.60

COMPRESSION WASH TRAY BIBBS

STUB PATTERN, PLAIN



Fig. 38734B

Size Inches	PRICE, PER DOZEN—			
	MALE Finished	N. P.	FEMALE Finished	N. P.
1/2	18.60	22.20	20.40	24.00
3/4	21.00	24.60	22.80	26.40

For China Index Handles, add per dozen: 1/2-inch, 9.00; 3/4-inch, 8.40.

COMPRESSION BOILER DRAIN COCKS



Fig. 38734C

MALE, ROUGH, NICKEL-PLATED

Size Inches	PRICE, PER DOZEN—	
	Plain	Hose
1/2	17.40	17.40
3/4	22.80	22.80

COMPRESSION WASH TRAY BIBBS

STUB PATTERN, HOSE



Fig. 38734E

Size Inches	PRICE, PER DOZEN—			
	MALE Finished	N. P.	FEMALE Finished	N. P.
1/2	21.60	25.20	23.40	27.00
3/4	24.00	27.60	25.80	29.40

For China Index Handles, add per dozen: 1/2-inch, 9.00; 3/4-inch, 8.40.

COMPRESSION BOILER DRAIN COCKS



Fig. 38734F

FEMALE, ROUGH, NICKEL-PLATED

Size Inches	PRICE, PER DOZEN—	
	Plain	Hose
1/2	19.20	19.20
3/4	24.60	24.60

REPUBLIC COMPRESSION BIBBS

PLAIN BIBBS



Fig. 17637A

Size Inches	PRICE, PER DOZEN		
	Rough	Finished	Nickel-plated
1/2	17.40	19.80	23.40
3/4	22.80	25.20	28.80

HOSE BIBBS



Fig. 17637B

Size Inches	PRICE, PER DOZEN		
	Rough	Finished	Nickel-plated
1/2	20.40	22.80	26.40
3/4	25.80	28.20	31.80

PLAIN BIBBS
WITH ADJUSTABLE SCREW FLANGE

Fig. 17637C

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
1/2	32.40	36.00
3/4	40.80	44.40

HOSE BIBBS
WITH ADJUSTABLE SCREW FLANGE

Fig. 17637D

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
1/2	35.40	39.00
3/4	43.80	47.40

WITH FOUR-BALL CHINA INDEXED HANDLES



Fig. 17637E

Any of the above bibbs furnished with four-ball china indexed handles at the following addition to the above list.

Size..... inches 1/2 3/4
For Four-ball China Indexed Handles, add to list..... per dozen 9.00 8.40

REPUBLIC COMPRESSION BIBBS

HEAVY PATTERN STUFFING BOX CAP

FOR IRON PIPE

SOLID FEMALE FLANGE

WITH HEXAGON

PLAIN BIBB



Fig. 37034A

HOSE BIBB



Fig. 37034B

Size
Inches
 $\frac{1}{2}$
 $\frac{3}{4}$

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
$\frac{1}{2}$	25.80	29.40
$\frac{3}{4}$	32.40	36.00

Size
Inches
 $\frac{1}{2}$
 $\frac{3}{4}$

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
$\frac{1}{2}$	28.80	32.40
$\frac{3}{4}$	35.40	39.00

SOLID MALE FLANGE

WITH HEXAGON

PLAIN BIBB



Fig. 37034C

HOSE BIBB



Fig. 37034D

Size
Inches
 $\frac{1}{2}$
 $\frac{3}{4}$

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
$\frac{1}{2}$	27.60	31.20
$\frac{3}{4}$	34.20	37.80

Size
Inches
 $\frac{1}{2}$
 $\frac{3}{4}$

Size Inches	PRICE, PER DOZEN	
	Finished	Nickel-plated
$\frac{1}{2}$	30.60	34.20
$\frac{3}{4}$	37.20	40.80

QUICK COMPRESSION BIBBS

FOR IRON PIPE



Fig. 35059A

WITH INDEXED CHINA HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	27.60	33.00	
" Nickel-plated "	31.20	36.60	
Add for Hose End "	3.00	3.00	

WITH PLAIN BRASS HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	21.60	27.00	
" Nickel-plated "	25.20	30.60	
Add for Hose End "	3.00	3.00	

SOLID FLANGE—FEMALE



Fig. 35059B

WITH INDEXED CHINA HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	33.60	40.20	
" Nickel-plated "	37.20	43.80	
Add for Hose End "	3.00	3.00	

WITH PLAIN BRASS HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	27.60	34.20	
" Nickel-Plated... "	31.20	37.80	
Add for Hose End "	3.00	3.00	

SOLID FLANGE—MALE



Fig. 35059C

WITH INDEXED CHINA HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	35.40	42.00	
" Nickel-plated "	39.00	45.60	
Add for Hose End "	3.00	3.00	

WITH PLAIN BRASS HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	29.40	36.00	
" Nickel-plated "	33.00	39.60	
Add for Hose End "	3.00	3.00	

ADJUSTABLE SCREW FLANGE



Fig. 35059D

WITH INDEXED CHINA HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	40.20	48.60	
" Nickel-plated "	43.80	52.20	
Add for Hose End "	3.00	3.00	

WITH PLAIN BRASS HANDLES

Size.....	..... inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Finished... per doz.	34.20	42.60	
" Nickel-plated "	37.80	46.20	
Add for Hose End "	3.00	3.00	

SELF-CLOSING BIBBS

DOHERTY PATTERN

WITH SHOULDER



Fig. 37243A

Size.....	inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		34.20	35.40	42.00
" N. P.. "		40.20	41.40	48.00

DOHERTY PATTERN

WITH EXTENSION FLANGE



Fig. 37243C

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		48.00	57.60
" N. P.. "		54.00	63.60

BOSTON PATTERN

WITH SHOULDER



Fig. 37243B

Size.....	inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		29.40	30.60	37.20
" N. P.. "		35.40	36.60	43.20

WITH EXTENSION FLANGE

Not Illustrated

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		43.20	52.80
" N. P.. "		49.20	58.80

BURLINGTON PATTERN
BALL-BEARING HANDLE

WITH SHOULDER



Fig. 37243D

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		50.40	59.00
" N. P.. "		56.40	63.00

WITH EXTENSION FLANGE

Not Illustrated

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$
Price, Fin...per doz.		63.00	72.60
" N. P.. "		69.00	78.60

Any style tail-piece can be furnished with Burlington bibbs.

CHAINS, CHAIN STAYS, ETC.

SAFETY CHAINS WITH SNAPS

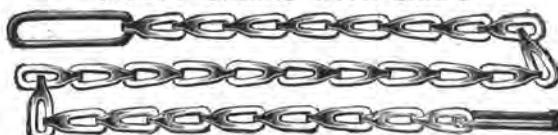


Fig. 35494A

Number	00	0	1	2
Price, N. P. Basin Chains	1.25	1.50	1.75	...
" " Bath Tub Chains	1.75	2.05	2.50	3.05
" " Wash Tray "	1.45	1.75	2.00	2.50

BEAD CHAINS



Fig. 35494B

Bead Chain is sanitary and rust-proof being made of brass, heavily nickel-plated. Fitted with patent Jump Ring Couplings at each end.

Price, Basin Chain, 12 Inches Long	3.00
" Bath " 17 " " "	3.50
" Wash Tray Chain 11 Inches Long	3.50
" Closet Chain, 48 Inches Long	12.50

COCK HOLE COVERS

Basin



Fig. 35494C

Bath



Fig. 35494D

Price, N. P. Basin	4.20
" " Bath	4.80
" " Sink	4.80
" " Bath Overflow	10.80

BASIN CLAMPS



Fig. 35494E

Price, Rough	per doz.	2.00
------------------------	----------	------



Fig. 35494F

No.	Boxes of 12 Yards Price, Brass per Box	500-ft. Reels Price, Brass per 100 Ft.
000	1.25	3.50
00	1.45	4.00
0	1.80	5.00
1	2.25	6.25
2	2.90	8.00

Net extra for nickel-plating.

CHAIN STAYS

No. 2



Fig. 35494G

No. 3



Fig. 35494H

No.	Price per Dozen Nickel- plated	No.	Price per Doz. Nickel- plated
0	2.40	3	4.20
1	2.40	4	6.60
2	3.60	,	.....

WASTE TUBES



Fig. 35494J

Price, Rough	per doz.	1.50
" Finished	"	2.00

BASIN AND BATH COCK CONNECTIONS, ETC.
SLIP JOINT ELBOWS



Fig. 1473A

I. P. Thread Inches	Slip Joint Diameter Inches	Price N. P. Each
3/8	3/8 to 1/2	.80
5/8	9/16 " 1/2	.85
1/2	3/8 " 1/2	.85
5/8	9/16 " 1/2	.90

SLIP JOINT COUPLINGS

Flanged



Fig. 1473B



Fig. 1473C

I. P. Thread Inches	Slip Joint Diameter Inches	PRICE N. P. EACH
	Plain	Flanged
3/8	3/8 to 9/16	.55 .85
5/8	" 1/2	.60 .90
1/2	3/8 " 9/16	.70 1.00
1/2	5/8 " 1/2	.75 1.05
1/2	3/4 " 1/2	.85 1.15
3/4	3/4 " 7/8	1.15 1.50
5/8	7/8 " 1 1/16	1.40 1.75

SLIP JOINT NUTS

Fig. 1473D

I. P. Thread Inches	Size O. D. Tube Inches	Price N. P. Each
3/8	7/16	.15
1/2	7/16	.20
5/8	9/16	.20
3/4	9/16	.23
3/4	21/32	.25
5/8	31/32	.25
1	1	.25
1 1/4	1 1/4	.28
1 1/4	1 3/8	.28
1 1/2	1 1/4	.30
1 1/2	1 3/8	.30
1 1/2	1 1/2	.30
2	2	.30



Fig. 1473E

I. P. Thread Inches	Size O. D. Tube Inches	Price Each
1 1/4	1 1/4	.70
1 1/4	1 3/8	.50
1 1/2	1 1/4	.80
1 1/2	1 3/8	.75
1 1/2	1 1/2	.75
1 1/2	1 5/8	.70

SOLDER BUSHINGS

Fig. 1473F

I. P. Thread Inches	Size O. D. Tube Inches	Price Each
1 1/4	1 1/4	.30
1 1/4	1 3/8	.30
1 1/2	1 1/4	.45
1 1/2	1 3/8	.45
1 1/2	1 1/2	.40
1 1/2	1 5/8	.40
2	1 1/2	.75
2	1 5/8	.75
2	2	.75

FLUSH BUSHINGS

Fig. 1473G

I. P. Thread Inches	Size O. D. Tube Inches	Price Each
1 1/4	1 1/4	.17
1 1/4	1 3/8	.15
1 1/2	1 1/4	.27
1 1/2	1 3/8	.25
1 1/2	1 1/2	.20
1 1/2	1 5/8	.20
2	1 1/2	.17

BRASS SPUN FLANGES

CANOPY FLANGES



Fig. 39020A



Fig. 39020B

2 1/2-INCH CANOPY FLANGES

Size, I. P. S. Tubing	inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Price, Nickel-plated	per dozen	.....	.....	.....

Size, O. D. Tubing	inches	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$
Price, Nickel-plated	per dozen	.....	.....	.....	.....	.....	.....

3-INCH CANOPY FLANGES

Size, I. P. S. Tubing	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Price, Nickel-plated	per dozen	.....	.....	.....	.....	.....

Size, O. D. Tubing	inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Price, Nickel-plated	per dozen	.....	.....	.....

BIBB FLANGES



Fig. 39020C



Fig. 39020D

Outside Diameter	inches	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	3	3
Size Hole	"	$\frac{11}{16}$	$\frac{9}{8}$	$1\frac{3}{16}$	$\frac{9}{8}$	$1\frac{3}{16}$
Price	per dozen	.....	.....	.....	.....	.....

BIBB ESCUTCHEON
WITH SET SCREW.

Fig. 39020E



Fig. 39020F

BIBB ESCUTCHEONS

Made of 12-gauge brass, $2\frac{3}{8}$ -inch outside diameter.

Size Hole	inches	$\frac{7}{8}$	$1\frac{1}{16}$
Price	per dozen	.....	.....

SPUD FLANGES

Outside Diameter	inches	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$
Size Hole	"	$2\frac{1}{4}$	$2\frac{5}{16}$	$2\frac{5}{8}$
Price	per dozen	.....	.....	.....

SLIP JOINT AND SOLDERING FITTINGS

BRASS SLIP JOINT FITTINGS

90° ELBOWS



Fig. 11239A

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		1.24	1.28	1.28	3.00

45° ELBOWS



Fig. 11239B

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		1.20	1.26	1.26	2.98

TEES



Fig. 11239C

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		2.42	2.90	2.90	3.52

CROSSES

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		3.40	4.12	4.12	5.56

URINAL FITTINGS
TWO-WAY

Fig. 11239D

O. D. Inlet.....	inches	1 1/4
" Branches.....	"	3/8
Price, Two way.....	each	2.42
" Three-way.....	"	3.40

CAST BRASS SOLDERING
FITTINGS

90° ELBOWS



Fig. 11239E

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		.58	.66	.66	1.28

45° ELBOWS



Fig. 11239F

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		.52	.58	.58	1.28

TEES



Fig. 11239G

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		1.30	1.70	1.70	2.42

SLEEVES



Fig. 11239H

Size.....	inches	1 1/4	1 3/8	1 1/2	2
Price, N.P....each		.66	.74	.74	.92

STAMPED BRASS DRUM TRAP
COVERS—Not Illustrated

Stamped from heavy sheet brass and nickel-plated. Diameter, 6 inches; height, 7/8 inch.
Price.....each .75

GALVANIZED RANGE BOILERS**STANDARD, EXTRA HEAVY, AND DOUBLE EXTRA HEAVY**

**Standard Working Pressure, 85 Pounds. Extra Heavy Working Pressure 150 Pounds
Double Extra Heavy Working Pressure, 150 Pounds**

Welded Steel



Fig. 34136A

Riveted Iron or Steel



Fig. 34136B

HORIZONTAL AND VERTICAL

Approx. Capacity Gallons	Diam. Inside of Shell Inches	Length of Shell Feet	Price, Each Standard or Extra Heavy
18	12	3	14.50
24	12	4	15.75
30	12	5	19.00
32	14	4	21.00
40	14	5	24.00
42	16	4	26.00
52	16	5	31.00
66	18	5	38.00
82	20	5	45.50
100	22	5	63.50
120	24	5	72.50
144	24	6	103.00
192	24	8	132.00

TAPPINGS

Size	inches	1, 1 1/4 or smaller	1 1/2	2	2 1/2
Price	each	.50	.75	1.00	1.50

GALVANIZED COILS

Diameter of Boiler	inches	12	14	16	18	20	22	24
Price to add to Regular Boiler Price		10.50	12.00	16.00	18.00	21.00	25.00	30.00

Copper coils and brass coils quoted upon application.

BROWN & BROTHERS SEAMLESS DRAWN COPPER RANGE BOILERS

STANDARD VERTICAL

Cap. Gals.	DIMEN. IN. Diam.	Ht.	PRICE, EACH		
			Regular Pressure	Extra Heavy Pressure	Boxing Net Extra
30	12	60	65.0	85.0	2.00
35	14	53	75.0	95.0	2.00
40	14	60	85.0	105.0	2.25
45	14	68	100.0	120.0	2.25
50	16	60	140.0	170.0	2.50
60	16	70	160.0	190.0	2.50
60	20	44	210.0	250.0	3.50
80	16	96	200.0	240.0	3.50
80	20	59	250.0	290.0	3.50
100	20	76	300.0	350.0	5.00
100	24	60	325.0	375.0	5.00
120	24	65½	350.0	400.0	5.50
125	24	69	360.0	410.0	6.00
150	24	78½	400.0	450.0	7.00
180	24	92½	450.0	510.0	7.00
200	24	103	530.0	600.0	7.50
250	24	129	675.0	750.0	10.00
300	24	155	800.0	875.0	12.50

Improved construction.

Boilers 12, 14 and 16 inches in diameter have $\frac{3}{4}$ -inch iron pipe size male couplings, unless otherwise ordered. On 20 and 24-inch diameter boilers couplings are 1-inch iron pipe size, unless otherwise ordered.

All connections in excess of four are charged extra.

Regular pressure boilers tested to 200 pounds water pressure. Extra heavy pressure boilers tested to 300 pounds water pressure.



Fig. 4404A



Fig. 4404B

These boilers should not be installed without a reliable relief valve set at the lowest pressure consistent with its practical operation. The relief valve should be tested at least once each week to prevent corrosion.

All boilers are made of the best quality copper, thoroughly tinned on the inside.

Each boiler is plainly marked on the band. Guaranteed not to collapse.

RANGE BOILER JACKETS AND STANDS

KEYSTONE RANGE BOILER JACKETS

Boiler Capacity Gallons	Height Feet	Diameter Inches	Price Each	Boiler Capacity Gallons	Height Feet	Diameter Inches	Price Each
18	3	12	5.60	63	6	16	8.50
24	4	12	6.25	66	5	18	8.65
24	3	14	6.00	79	6	18	9.10
30	5	12	6.90	82	5	20	8.75
32	4	14	6.60	88	6	20	10.40
36	6	12	7.25	100	5	22	9.55
36	4½	14	7.10	120	6	22	11.40
40	5	14	7.50	120	5	24	10.40
42	4	16	7.10	144	6	24	12.00
48	6	14	7.85	168	7	24	13.80
52	5	16	8.20	192	8	24	16.10

An uncovered range boiler keeps the room in which it is located too hot—sometimes unbearable—particularly during the summer time. Windows are frequently opened which cools the room but wastes more fuel. It is most inconvenient to find no hot water at the faucet although a few hours before the boiler was hot. Water cools much slower when the boiler is covered with Keystone cover.

BOILER STANDS

Hawks Universal



Fig. 38818A



Fig. 38818B

Regular With Ring



Fig. 38818C

HAWKS UNIVERSAL BOILER STANDS

This stand will fit any size or make of boiler. It is adjustable to any height by use of 1½-inch pipe cut to length desired.

Price, Malleable Tee Fitting, Galvanized, Entire Stand
Aluminum Painted each 3.00

REGULAR BOILER STANDS

Ring.....	inches	12	13	14	16	18	20	22	24
Price, Plain.....	each	1.25	1.35	1.45	1.85	2.00	2.25	2.75	3.50
" Galv.....	"	2.50	2.60	2.70	3.25	3.80	4.50	5.00	6.50

TRIPOD BOILER STANDS

Number.....	1	2	3	
For Boilers.....	gallons	30 to 40	52 to 66	82 to 120
Price, Plain.....	each	1.25	2.00	2.75
" Galv.....	"	2.00	3.00	4.00

Tripod Adjustable

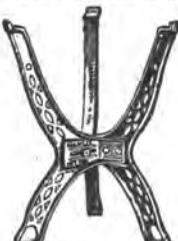


Fig. 38818D

BARBER'S HOT WATER BOILERS

GALVANIZED BOILERS

Made standard and extra heavy also welded. Where the supply is metered, safety valves should be used.



Fig. 30016A

COPPER BOILERS

Nominal Capacity Gallons	Diam. Inches	Height Inches	Standard	On Application	PRICE, EACH	Extra Heavy
5	10	16	...	...	...	...
8	12	17	...	...	...	...
10	12	22	...	...	...	...

Price, Stands, 6 Inches High..... each **1.50**
" Burners..... " "

KEWANEE BOILER COUPLINGS

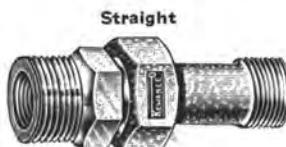


Fig. 30016B



Fig. 30016C

Price, $\frac{3}{4}$ -inch, Straight or Bent..... each **.65**

Male thread on brass end, 1-inch; on malleable end, $\frac{3}{4}$ -inch. Bent couplings are never sent tapped on the inside of the brass end, unless so ordered. Straight couplings are always sent tapped $\frac{1}{2}$ -inch on the inside of brass end, unless otherwise ordered.

PLAIN BRASS BOILER COUPLINGS, FOR IRON PIPE

Size	inches	STRAIGHT			BENT		
		$\frac{1}{2}$	$\frac{3}{4}$	1	$\frac{1}{2}$	$\frac{3}{4}$	1
Price, Plain Face.....	each	.90	1.20	1.60	1.05	1.40	1.85
" Ground Face.....	"	1.00	1.30	1.70	1.15	1.50	1.95

STORAGE GAS WATER HEATERS

NO COILS—LIME-PROOF



Fig. 10400A

ROYAL AUTOMATIC

The Royal Automatic keeps a constant supply of fresh steaming hot water always ready for instant demands. It is inexpensive, takes small space and consumes very little gas. It has no coils, is practically lime-proof, and has no parts liable to wear out. Its operation is entirely automatic.

When installed and the gas lighted, the main burner, utilizing about 60 feet of gas per hour, quickly heats the entire tank to 130 degrees Fahrenheit. Then the main burner snaps off automatically. The pilot light, however, continues to burn.

Small draughts of hot water for lavatory service do not always bring the main burner into operation, but when larger quantities are drawn the main burner flashes on again, quickly recovering the tank temperature, then goes out again.

Circulation: Cold water (connection at left) is carried to bottom of tank, feeds into spreader where it is quickly heated, and is carried to the top of the tank. This rotary movement of the water is constant throughout tank.

The Royal shell is of extra heavy copper bearing steel, thoroughly galvanized inside and out. All gas and water connections $\frac{3}{4}$ -inch, all sizes.

The thermostat is readily adjustable to maintain any desired temperature of water from 80 to 190 degrees.

The Royal Spreader facilitates heating by spreading the water in a thin sheet over the blaze of the main burner. As heated, the water forces its way up through the four upper arteries. This produces a continuous circulation throughout the tank and prevents lime and sediment deposits.



Fig. 10400B

MARVEL

The Marvel is similar to the Royal but without the automatic feature. When hot water is required, the burner is lighted and in a surprisingly short time the entire capacity of the tank is piping hot. Then the burner may be turned low or out, according to requirements. The Marvel Shell is made of extra heavy material and is electric welded.

SPECIFICATIONS

Size No.	Size of Shell Inches	APPROXIMATE WEIGHT POUNDS		Size No.	Size of Shell Inches	APPROXIMATE WEIGHT POUNDS	
		Royal	Marvel			Royal	Marvel
24	12x48	152	107	52	16x60	235	180
30	12x60	...	131	55	16x60	246	...
32	14x48	175	133	66	18x60	305	270
40	14x60	...	160	82	20x60	352	...
42	16x48	205	155	120	24x60	423	...
45	16x48	215	...	...	...	...	...

Sizes 45 and larger, Royals and Marvels, have two burners and two spreaders.
Prices upon application.

WATER HEATERS

SANDS AUTOMATIC GAS WATER HEATERS

This heater is made in different sizes to meet the requirements of all classes of hot water service. Has cast iron jacket, finished in fire burned japan.

The burners are patented special duplex design, arranged in a battery so their heat is all utilized.

Thermostatic heaters are used where supplementary heating method is in use to control the flow of gas according to a predetermined temperature of water. Non-thermostatic heaters are operated by a simple pressure type valve which controls flow of gas to main burners.

NON-THERMOSTATIC CONTROL

No.	Cap. per Min. Gal.	Height Inches	Flue Inches	Length Coil Feet	Shipping Weight Pounds
2NT	2	36	4	42	134
2½NT	2½	37	4	53	165
3NT	3	38	5	62	216
4NT	4	43	6	75	264
5NT	5	45	6	100	333

THERMOSTATIC CONTROL

3T	3	38	6	62	228
4T	4	43	6	75	280
5T	5	45	6	100	344

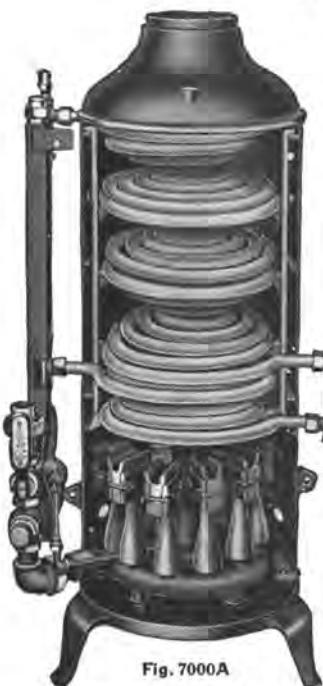


Fig. 7000A

FLORENCE KEROSENE WATER HEATERS

This heater puts the convenience of plenty of hot water into any home that has running water.

It has two wickless burners. No valves to leak. Burners deliver their intense heat close up and around the copper coils. These coils are directly over the flaming heat, which means that every heat unit is utilized. The coils consist of twenty-eight feet of copper tubing wound in two spirals.

Less than fifteen minutes after the burners are lighted, hot water can be drawn from the faucet in sufficient quantity for toilet or shaving. In 25 to 30 minutes a generous supply of hot water for washing dishes may be had. It would require but 10 to 15 minutes longer to heat sufficient water for the bath.

The burners may remain lighted as long as hot water is being used. When connected with a 30-gallon tank the Florence Water Heater will furnish all the hot water needed for the average home.

It is an economical heater because it burns kerosene, which makes it easy, safe and simple in operation.

The heater stands on four cast iron legs, is 38 inches high and requires a floor space 17 inches square.

The capacity of the oil reservoir is one gallon, which is sufficient to run both burners 8 to 10 hours, a cost for fuel of less than two cents per hour.

Special catalogue and prices upon application.

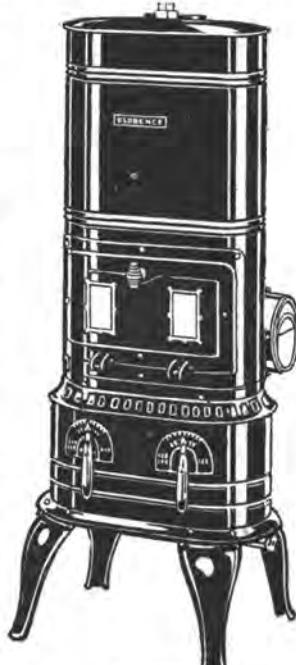


Fig. 7000B

HOLYOKE WATER HEATERS

No. 2-32

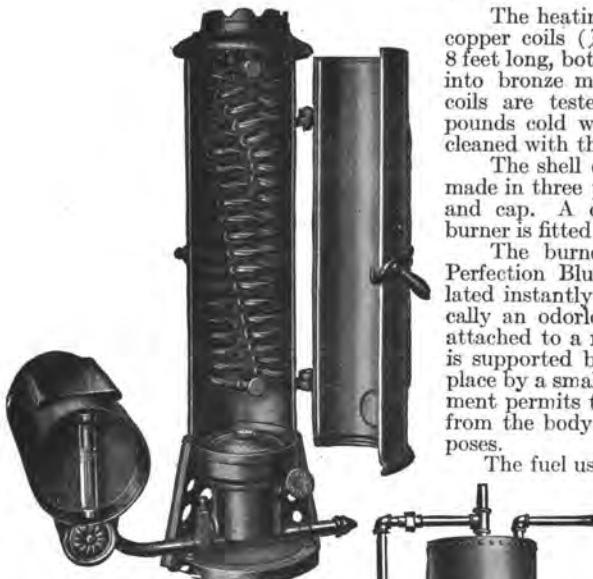


Fig. 21844A

GUARANTEE

The Holyoke Heater is guaranteed against mechanical defects, and the manufacturer agrees to replace defective parts, free of charge, within one year from date of purchase by the user.

The heater complete is shown herewith. In service, connection must be made with range boiler as shown herewith.

May be connected to the regular range boiler without interfering with the range connections.

Oil reservoir holds 1 gallon.

Capacity of Tank	gal.	20-40
Diam. Shell	ins.	6
" Base	"	8
Height	"	28 $\frac{1}{4}$
Space Required	"	12x17
Weight lbs.		40
Price each		30.00

The heating surface consists of 4 seamless copper coils ($\frac{7}{16}$ -inch outside diameter), each 8 feet long, both ends of each coil being brazed into bronze metal manifolds. All assembled coils are tested and guaranteed under 250 pounds cold water pressure. Coils are easily cleaned with the use of a small stiff brush.

The shell of the heater is of cast iron and made in three principal parts, i. e., front, back, and cap. A cast iron plate supporting the burner is fitted to the base of the heater.

The burner, which is of the Improved Perfection Blue Flame (wick) Type, is regulated instantly and positively, and has practically an odorless combustion. This burner is attached to a removable cast iron plate which is supported by the heater back and held in place by a small screw. This patented arrangement permits the burner to be easily removed from the body of the heater for cleaning purposes.

The fuel used is kerosene (coal oil).



WATER HEATERS

No. 25

Augmore No. 9



Fig. 32251A

AUGMORE NO. 9
WATER HEATERS

One-piece cast iron coil. All castings japanned. Jacket may be raised without releasing any nuts or disturbing the vent pipe. Recommended for use in hard water districts. Water connections, $\frac{3}{4}$ -inch; gas cock, $\frac{1}{2}$ -inch; flue pipe, 3-inch.

No.	Diam. Inches	Height Inches	Weight Crated Pounds
9	$\frac{7}{8}$	27	35
10	$\frac{7}{8}$	27	35
11	$\frac{7}{8}$	27	43

No.	Jacket	Price Each
9	Russia	12.00
10	Enamel	15.00
11	Cast Iron	18.00



Fig. 32251B

NOS. 25 AND 26 SANDS DOUBLE COPPER COIL HEATERS

No. 20 gauge double copper coil, cast iron flare jacket, patented baffle plate, red brass quick opening gas valve, special design burner with raised gas jets. Capacity, 30 to 40 gallons. Water connections, $\frac{3}{4}$ -inch; gas, $\frac{1}{2}$ -inch; flue, 3-inch.

No.	Diam. Inches	Ht. In.	Weight, Crated Pounds	Diam. Coil Inches	Price Each
25	8	24	43	$\frac{3}{4}$	15.00
26	8	24	45	$\frac{3}{4}$	18.00

SANDS KEROSENE WATER HEATERS

Kerosene is converted into gas and 1 gallon of kerosene will give hot water for eight hours. A 1-gallon kerosene tank is supplied with the heater and installation is a simple and easy matter.

The jacket is cast iron black fired japan finish—nothing to burn out. Double copper coil construction, absorbs the heat rapidly. Has patented burner; no wicks; makes its own gas; economical. It will heat a 30-gallon range boiler in one hour. Weight is 32 pounds, crated.

Price.....each 25.00

Kerosene



Fig. 32251C

LION WATER HEATERS



Fig. 10140A



Fig. 10140B

This heater is of tested and proven efficiency. The highest authorities in the country have given the Lion Heater unqualified endorsement.

It is durably constructed and free from complicated parts, thus insuring freedom from trouble.

The coils are of seamless copper tubing—brazed into brass manifolds, these coils are then tested under 300 pounds hydrostatic pressure. The complete coil is securely fastened to a heavy cast iron jacket with locknuts. No strain on the piping.

The cast iron jacket is made of the best gray iron—black japanned. The front half of jacket is a hinged door extending the entire length of casing. Opening of the door provides easy access to the coil and burner.

The burner—of two-piece type—durable and powerful. The Bunsen tube is fitted with an adjustable air shutter. To light the burner it is necessary to first open the door.

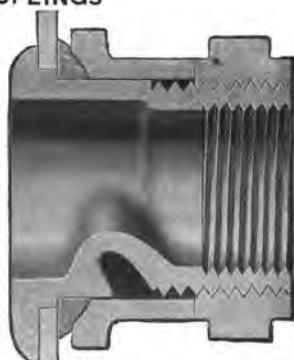
The gas valve of heavy brass has an automatic spring take-up to prevent leakage from wear.

FEATURES.—Special heat deflector—double diameter jacket at burner chamber.

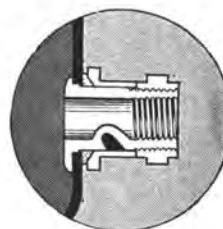
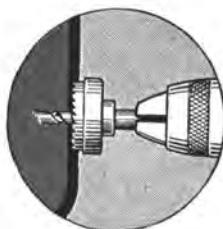
Size No.	Height Inches	Max. Diam. Inches	Cu. Ft. Gas per Hour	Gas Valve Inches	Flue Inches	Water Connection Inches	Coil	Price
1J	20½	8¾	35	½	3	¾	Double	.....
1½G	23	8¾	44	½	3	¾	"	.....
2	26	12	72	¾	4	1¼	Triple	.....

LION TANK COUPLINGS AND DRILLS**LION QUICK ACTION TANK COUPLINGS**

Fig. 34812A



The Lion Quick Action Coupling consists of a nipple, which contains a notch to allow of insertion in the hole in the tank, a gasket, a collar and a nut. Both nipple and collar are cast so as to conform to the curvature of the wall of the tank. This curvature and the rubber gasket insure an air-tight, water-tight and steam-tight connection.

Showing Application

With a special shell drill 2 holes are made in the side of the tank, 1-inch in diameter, 1 at the top and 1 at the bottom. Then the tank coupling is inserted, fitted with gasket, collar and nut and tightened. Thus there is a steam and water-tight connection threaded for piping. To connect up the heater takes very little time. *No unions required.*

Price, $\frac{3}{4}$ -inch Couplings, Complete.....	each	1.00
" 1 "	" "	3.00

LION QUICK ACTION TANK DRILLS

Fig. 34812B

Special steel drill for making holes in tank. Guide drill is made extra long so that tap will not fall into the tank—an important feature. Drill can be fitted to any brace.

Price, Drill Complete, for Use with $\frac{3}{4}$ -inch Coupling.....	each	2.50
" " " " " "	" "	3.50

LAWSON WATER HEATERS**STEEL JACKET WATER HEATERS****SINGLE COIL**

Nos. 1A, 1½A, 2A



Fig. 10900A

Single copper coil, polished steel jacket, lined with asbestos to hold the heat. One piece cast iron burner and mixer. No. 2-A is the smallest size recommended for manufactured gas.

No.	Diameter Inches	Height Inches	Price Each
1 -A	7	14	7.50
1½-A	7	16	8.00
2 -A	7	18	9.50

CAST IRON JACKET WATER HEATERS**SINGLE COIL**

Nos. 5A, 6A, 7A



Fig. 10900B

Single copper coil, cast iron japanned jacket. Front half of jacket forms hinged door, allowing access to coil and burner. This is quite an advantage, for greater efficiency results when coils are kept free from carbon. The No. 7A is smallest size recommended for manufactured gas.

No.	Diameter Inches	Height Inches	Price Each
5-A	6½	14½	8.50
6-A	6½	16½	9.50
7-A	6½	18½	11.00



Fig. 10900C

CAST IRON JACKET WATER HEATERS**DOUBLE COIL****No. 20 STANDARD**

This is the heater to select where a double coil heater is to be installed or heavy duty. For use with 30-gallon boiler. Coils brazed to brass couplings. Equipped with U. G. I. Gas Cock and bottom mixer burner only. Copper coils in all these heaters are made of 20-gauge first grade seamless copper tubing.

No.	Diameter Inches	Height Inches	Price Each
20 Standard	7	22½	16.41

RUBBER SUNDRIES

Beveled Slip Joint Washer



Fig. 5399A

Plain Slip Joint Washer



Fig. 5399B

RUBBER CLOSET ELBOWS



Fig. 5399F

BEVELED SLIP JOINT WASHERS

Price, $\frac{3}{8}$ -inch I. D. per 100 2.80

PLAIN SLIP JOINT WASHERS

Size Inches	Price per 100	Size Inches	Price per 100
$\frac{3}{8}$	1.20	$1\frac{1}{4}$	2.10
$\frac{1}{2}$	1.30	$1\frac{1}{2}$	2.50
$\frac{3}{4}$	1.50	2	3.40
1	1.90	...	....

BEVELED WASTE AND OVERFLOW
WASHERS

Fig. 5399C

Price..... per dozen 1.20

SUCTION STOPPERS



Fig. 5399D

Size.....	Basin	Bath	Sink
Price..per dozen	3.00	4.00	6.00

REGULAR RUBBER STOPPERS



Fig. 5399E

Size Inches	Price per Doz.	Size Inches	Price per Doz.
$\frac{3}{4}$	1.44	$1\frac{1}{4}$	1.80
$\frac{7}{8}$	1.44	$1\frac{1}{2}$	2.28
1	1.44	$1\frac{3}{4}$	2.55
$1\frac{1}{8}$	1.56	2	3.24

FLOOR FLANGE GASKETS



Fig. 5399G

Size.....	inches	Price..... per dozen	4 $\frac{1}{8}$	4 $\frac{1}{4}$
			3.60	4.00

RUBBER TANK BALLS

Cone Top



Fig. 5399H

Parabal



Fig. 5399J

CONE TOP	PARABAL	Price..... per doz.	6.00
Price, Small, 2-inch.....	" Medium, 2 $\frac{1}{2}$ -inch	"	7.00
" Large, 2 $\frac{3}{4}$ -inch.....	"	"	9.20

PARABAL	Size Inches	Price per Dozen	Size Inches	Price per Dozen
2	12.00		$2\frac{1}{2}$	12.00
$2\frac{1}{8}$	12.00		$2\frac{5}{8}$	12.00
$2\frac{1}{4}$	12.00		$2\frac{3}{4}$	12.00
$2\frac{3}{8}$	12.00		3	12.00

No. 1 SEAT HINGE RUBBERS



Fig. 5399K

No.....	O. S. Diameter, inches	1 $\frac{3}{8}$	2
O. S. Diameter, inches	"	$1\frac{3}{8}$	$1\frac{3}{8}$
Hole..... "	"	$\frac{1}{2}$	$\frac{3}{8}$
Height..... "	"	$\frac{3}{8}$	$\frac{9}{16}$
Price..... per 100		2.50	4.00

RUBBER SUNDRIES

FEATHER EDGE SYPHON
WASHERS

Fig. 39407A

Size Inches	Price per Doz.	Size Inches	Price per Doz.
1	1.50	1 1/2	2.00
1 1/8	1.60	1 5/8	2.40
1 1/4	1.70	1 3/4	2.50
1 3/8	1.90	2	2.70

SYPHON PACKERS



Fig. 39407B

Size Inches	Price per Doz.
1	1.40
1 1/4	1.50
1 1/2	2.00
1 3/4	2.60
2	3.00

WASTE WASHERS
WOLFF

Fig. 39407C

Size Inches	PRICE, PER DOZEN
1	Wolff 1.00
1 1/4	1.80 Unique 1.20
1 1/2	3.00 1.40



Fig. 39407D

IDEAL WASTE
WASHERS

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

Size Inches	Price per Doz.
1	.80
1 1/4	1.20
1 1/2	1.50

BATH PLUG WASHER



Fig. 39407F

BASIN GASKET



Fig. 39407G

Price, Bath Plug Washers per dozen 1.00
" Basin Gaskets .85

SINK GASKETS



Fig. 39407H

Price.....per dozen 1.50

MACK BATH GASKETS



Fig. 39407J

Price.....per dozen .80

OBLONG BUMPERS



Fig. 39407K

No.	Length Inches	Width Inches	Price per 100
1	1 5/8	1 1/2	6.00
2	2 1/8	1 1/2	7.00
3	2 1/2	1 1/2	8.00

BUMPERS



Fig. 39407L



Fig. 39407M

Diam. Inches	Tack Bumpers PRICE, PER DOZEN	Screw Bumpers PRICE, PER DOZEN
3/8	.10	...
1/2	.15	...
5/8	.20	...
3/4	.30	.60
7/8	...	.70
1	...	1.00

RUBBER SUNDRIES

UNION WASHERS



Fig. 17055A

Size Inches	Price per Doz.	Size Inches	Price per Doz.
3/8	.10	1 1/4	.20
1/2	.12	1 1/2	.22
5/8	.15	2	.25
1	.16	2 1/2	.30

TEST PLUG RUBBERS



Fig. 17055E

Size.....inches	2	3	4	5	6
Price.....each	.30	.60	.85	1.10	1.50

SQUARE GAUGE GLASS
WASHERS

Fig. 17055B

Size.....inches	1/2	5/8	3/4
Price.....per dozen	.20	.20	.20

ROUND GAUGE GLASS WASHERS



Fig. 17055C

Size.....inches	1/2	5/8	3/4
Price.....per dozen	.30	.30	.30

LOW PRESSURE DIAPHRAGMS



Fig. 17055D

For use on low pressure heating systems. Made of high-grade rubber with two-ply cloth insertion.

Size.....inches	6 1/2	7	7 7/8	9
Price.....each	.50	.55	.70	.85

PUMP VALVES



Fig. 17055F

These valves are adaptable to a wide range of ordinary and special conditions which have been investigated by the factory for the purpose of ascertaining the correct compound to give the best results. Made in the following grades:

Service Consistency	Intended for	For Pressure Pounds
Soft	Cold Water	80 to 100
Medium	Semi-hot Water	100 " 250
Hard	Hot Water	125 " 300

In ordering, state diameter, thickness and size of hole.

Price upon application.

HOSE WASHERS



Fig. 17055G

Size Inches	Price per Doz.	Size Inches	Price per Doz.
3/4	.15	1 1/2	.40
1	.20	2	.60
1 1/4	.30	...	...

RUBBER SUNDRIES

FULLER BALLS



Fig. 29673A

Our Fuller balls are especially compounded from high-grade material in several styles. The plain black for cold water only. Special red for hot water and the N. B. O. Black for hot or cold water.

Size.....	.....inches	$\frac{3}{8}$	to	$\frac{3}{4}$
Price, Black.....	per 100	5.00		
" Special Red.....	"	8.00		
" N. B. O.—Hot or Cold.....	"	10.00		

FULLER ECCENTRICS



Fig. 29673B

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	
Price.....	per doz.	3.60	4.20	

FULLER STEMS WITH BALLS



Fig. 29673C

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	
Price.....	per doz.	3.60	4.20	

TOP WASHER



Fig. 29673D

STEM PACKING



Fig. 29673E

BRASS CAP



Fig. 29673F

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1
Price, Top Washers, per doz.		.50	.50	.60
" Stem Pkg., Lead.....	"	.30	.30	.30
" " Felt.....	"	.60	.60	.60
" Brass Caps....	"	.30	.40	.60

BIBB WASHERS



Fig. 29673G

Size Inches	PRICE, PER 100	
	Rubber	Fiber
$\frac{3}{8}$	.90	.90
$\frac{1}{2}$	.90	.90
$\frac{5}{8}$	.90	.90
$\frac{3}{4}$	1.20	1.20
$\frac{7}{8}$	1.30	1.30
1	1.50	1.50
$1\frac{1}{4}$	1.50	1.50

BRASS NUTS AND SCREWS



Fig. 29673H

A partitioned metal box containing one gross assorted nuts and screws for every size bibb, with tweezers for easy handling. Price.....per assortment 3.00

FURNACE BULBS



Fig. 29673J

Price, Bulb Complete.....	each	.70
" Tube only.....	"	.20

STOP AND STOP AND WASTE COCKS

No. 1 PATENT CAP

STOP COCK



Fig. 34632A

STOP AND WASTE



Fig. 34632B

A high grade stop cock made of best grade of red metal. Will meet the most exacting requirements.

Size.....	.....inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1
Price, Flat Way Stops, for Iron Pipe.....per dozen		21.00	29.40	36.00	52.80
" " " Stop and Wastes, for Iron Pipe "		21.60	30.00	36.60	54.00
" Round " Stops, for Iron Pipe....."		26.40	36.00	46.20	73.80
" " " Stop and Wastes, for Iron Pipe "		27.00	36.60	46.80	75.00

No. 2 CAP PATTERN



Fig. 34632C

SOCKET HEAD



Fig. 34632D

No. 2 CAP PATTERN

A medium grade stop cock at a medium price.

Size.....	.....inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1
Price, Flat Way Stops, for Iron Pipe.....per dozen		21.00	29.40	36.00	52.80
" " " Stop and Wastes, for Iron Pipe "		21.60	30.00	36.60	54.00
" Round " Stops, for Iron Pipe....."		26.40	36.00	46.20	73.80
" " " Stop and Wastes, for Iron Pipe "		27.00	36.60	46.80	75.00

SOCKET HEAD

Size.....	.....inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1
Price, Flat Way Stops, for Iron Pipe.....per dozen		21.00	29.40	36.00	52.80
" " " Stop and Wastes, for Iron Pipe "		21.60	30.00	36.60	54.00
" Round " Stops, for Iron Pipe.....each		26.40	36.00	46.20	73.80
" " " Stop and Wastes, for Iron Pipe "		27.00	36.60	46.80	75.00

CORPORATION AND CURB COCKS

CORPORATION COCKS

WITH $\frac{1}{8}$ BEND COUPLING
FOR SCREW PLUG

Fig. 22463A

Size In.	Price per Doz.	Size In.	Price per Doz.
$\frac{1}{2}$	19.20	$1\frac{1}{4}$	120.00
$\frac{5}{8}$	27.00	$1\frac{1}{2}$	192.00
$\frac{3}{4}$	34.20	2	318.00
1	54.00	...	.....

Quarter bend coupling furnished at same price.

WITH LEAD FLANGE COUPLING



Fig. 22463B

Size In.	PRICE, EACH For I.P. For Wood	Size In.	PRICE, EACH For I.P. For Wood
$\frac{3}{8}$	2.10 2.45	1	6.00 6.90
$\frac{1}{2}$	2.25 2.65	$1\frac{1}{4}$	12.75 14.40
$\frac{5}{8}$	3.05 3.50	$1\frac{1}{2}$	20.00 22.50
$\frac{3}{4}$	3.85 4.40	2	32.25 36.25

CURB COCKS

FOR IRON PIPE T' HANDLE



Fig. 22463C

Size In.	Price, Rough per Doz.	Size In.	Price, Rough per Doz.
$\frac{1}{2}$	26.40	$1\frac{1}{4}$	120.60
$\frac{5}{8}$	36.00	$1\frac{1}{2}$	197.40
$\frac{3}{4}$	46.20	2	342.00
1	73.80	...	.....

CORPORATION COCKS

WITHOUT COUPLING FOR SCREW PLUG



Fig. 22463D

Size In.	Price per Doz.	Size In.	Price per Doz.
$\frac{1}{2}$	17.40	$1\frac{1}{4}$	111.00
$\frac{5}{8}$	23.40	$1\frac{1}{2}$	180.00
$\frac{3}{4}$	30.00	2	300.00
1	48.00	...	.....

LEAD GOOSENECKS

WITH CORPORATION COCK



Fig. 22463E

Size In.	Price per Doz.	Size In.	Price per Doz.
$\frac{1}{2}$	63.00	$1\frac{1}{4}$	234.00
$\frac{5}{8}$	75.00	$1\frac{1}{2}$	372.00
$\frac{3}{4}$	87.00	2	582.00
1	129.00	...	.....

INVERTED KEY CURB COCKS

FOR IRON PIPE



Fig. 22463F

Size In.	Price, Rough per Doz.	Size In.	Price, Rough per Doz.
$\frac{1}{2}$	35.40	$1\frac{1}{4}$	144.60
$\frac{5}{8}$	45.60	$1\frac{1}{2}$	233.40
$\frac{3}{4}$	58.80	2	396.00
1	88.80	...	.....

FERRULES AND COUPLINGS

BRASS FERRULES



Fig. 4623A



Fig. 4623B

ATHOL UNION FERRULES

Eighth Bend



Fig. 4623F



Fig. 4623G

FOR STANDARD PIPE

Size In.	PRICE, PER DOZ.		PRICE, PER DOZ.	
	Standard Weight	Heavy Weight	Standard Size In.	Heavy Weight
2	9.00	10.80	4	18.60
3	15.60	18.00	2x1½	22.20
			....	9.00

FOR EXTRA HEAVY PIPE

2	11.40	13.20	4	24.00	27.60
3	19.80	22.20	2x1½	....	11.40

TRAP SCREW FERRULES

Brass, with Trap Screw



Fig. 4623C

Iron Body, with Brass Trap Screw



Fig. 4623D

Size In.	PRICE, PER DOZEN		IRON BODY	
	BRASS Standard Weight	BRASS Heavy Weight	IRON BODY Standard Weight	IRON BODY Heavy Weight
2	14.40	16.20	10.80	11.40
3	24.00	26.40	16.80	18.00
4	31.20	34.80	21.00	21.60
5	.....	147.00	.....	.....
6	.....	168.00	.....	.....

IRON DRIVE FERRULES



Fig. 4623E

Size.....	inches	1½	2	4
Price.....	each	.20	.24	.40

SOIL PIPE UNION FERRULES

Size.....	inches	2x1¼	2x1½
Price, Iron Body with Brass Nut and Collar	.....each	.90	1.10
Price, All Brass....."	"	1.30	1.50

EIGHTH BEND UNION FERRULES

Size.....	inches	2x1¼	2x1½
Price, Iron Body with Brass Nut and Collar	.....each	1.10	1.30
Price, All Brass....."	"	1.70	1.90

UNION COUPLINGS



Fig. 4623H

For connecting wrought iron pipe to lead pipe.

Size.....	inches	1½x1¼	1½x1½
Price, Iron Bushing with Brass Nut and Tail Piece.....each	"	.90	1.10
Price, All Brass....."	"	1.30	1.50

LEAD FLANGE UNION COUPLINGS, ETC.**LEAD FLANGE UNION COUPLINGS****LEAD TO IRON**

Fig. 14830A

Size Inches	Price per Dozen	Size Inches	Price per Dozen
1/2	10.20	1 1/4	45.60
5/8	15.60	1 1/2	60.00
3/4	18.00	2	90.00
1	24.00		

LEAD TO LEAD

Fig. 14830B

Size Inches	Price per Dozen	Size Inches	Price per Dozen
1/2	21.00	1 1/4	90.00
5/8	30.00	1 1/2	111.00
3/4	35.40	2	171.00
1	46.80		

SOLDERING NIPPLES**Male**

Fig. 14830C

Female

Fig. 14830D

Size Inches	Male	PRICE, PER Doz.	Female
3/8	3.60		3.60
1/2	4.20		4.20
5/8	6.00		6.00
1	8.40		8.40
1 1/4	10.80		10.80
1 1/2	15.00		15.00
2	21.00		21.00
2 1/2	36.00		36.00
3	48.00		48.00
4	84.00		84.00

SOLDERING UNIONS**Straight**

Fig. 14830E

Bent

Fig. 14830F

Size Inches	PRICE, PER DOZEN	
	Straight	Bent
3/8	4.80	7.20
1/2	6.00	8.40
5/8	7.80	9.60
1	10.20	12.00
1 1/4	13.20	16.20
1 1/2	15.00	22.80
2	21.00	30.00

GROUND JOINT SOLDERING UNIONS

Fig. 14830G

Size Inches	PRICE, PER Doz.	
	Straight	Bent
3/8	9.60	11.40
1/2	11.40	14.40
5/8	14.40	18.60
1	18.60	22.20
1 1/4	21.00	24.00
1 1/2	27.00	33.00
2	39.00	45.00

BRASS WATER BACK COUPLINGS**MALE THREAD
STRAIGHT**

Fig. 14830H

Size	Style	Price Each
Plain Face		12.60
Ground "		13.80

GREASE TRAPS

STANDARD SQUARE PATTERN



Fig. 32187A

BOSTON SQUARE PATTERN



Fig. 32187B

STANDARD SQUARE PATTERN

Cast iron trap with removable top and swivel bolts, brass inlet, outlet and vent connections. Length, 13 inches. Width, 10 inches. Height, 10 inches.	
Price, Enamelled Inside, with 1½-inch Fittings.....	each 39.95
" " " " 2 " "	" 43.35
" " " All Over, with 1½-inch Fittings.....	" 48.00
" " " " 2 " "	" 51.45

BOSTON SQUARE PATTERN

Size of Top.....	inches	12x12
Depth.....	"	10
Inlet, I. P. Thread.....	"	1½
Outlet, I. P. "	"	2
Price, Painted.....	each	16.00

DONOVAN



Fig. 32187C

DIAMOND



Fig. 32187D

DONOVAN

Size of Top.....	inches	12x12
Depth.....	"	10
Two Opposite Inlets and Outlet, I. P. Thread.....	"	2
Price, Painted.....	each	24.00

DIAMOND

Size.....	inches	7x10½
Inlet and Outlet, I. P. Thread.....	"	1½ or 2
Price, Painted.....	each	10.00
" Galvanized.....	"	14.00
" Painted White Enamel.....	"	14.00
Add for Nickel-plated Cover.....	"	1.00

DRUM AND SINK TRAPS

DRUM TRAPS



Fig. 34714A



Fig. 34714B



Fig. 34714C



Fig. 34714D

CAST IRON DRUM TRAPS

Price, No. 6, 4x8 Inches with Nickel-plated Flanged Trap Screw, Two 1½-inch Tappings.....	each	2.50
Price, No. 7, 4x8 Inches, with Nickel-plated Flanged Trap Screw, Three 1½-inch Tappings.....	each	2.75
Price, No. 8, 4x8 Inches, with Nickel-plated Flanged Trap Screw, Four 1½-inch Tappings.....	each	3.00

LEAD DRUM TRAPS

Size.....	inches	4x8	4x8	4x8	4x8	4x9	4x9
Weight.....	pounds	4	5	6	8	4	5
Price.....	per dozen	24.00	28.30	31.75	38.75	25.00	29.30
Size.....	inches	4x9	4x9	5x9	6x10	6x10	.....
Weight.....	pounds	6	8	8	10	12	.....
Price.....	per dozen	34.25	41.00	45.00	78.00	83.50	.....

If with nickel-plated flanged top, add per dozen 8.50

CAST IRON SINK TRAPS

S TRAP
FOR SINK COLLARP TRAP
FOR SINK COLLARP TRAP
WITH SLIP JOINT NUTS TRAP WITH
SLIP JOINT NUT

Fig. 34714E



Fig. 34714F



Fig. 34714G



Fig. 34714H

Size.....	inches	1¼	1½
Long S Traps, for Collar, Plain.....	each	1.50	2.00
Long S Traps, for Collar, Galv'd.....	each	2.25	2.90
P Traps, for Collar, Plain.....	"	.75	1.00
" " " Galv'd.....	"	1.15	1.50
Add for Slip Joint Nut.....		.25	.30

CUDELL TRAPS

BALL TRAPS



Fig. 29774A



Fig. 29774B



Fig. 29774C

No. 2 RUNNING



Fig. 29774D

No. 2 BATH TRAP

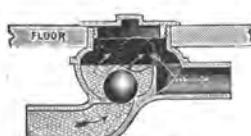


Fig. 29774E

No. 13 ANTI-SYPHON P TRAP



Fig. 29774F

ANTI-SYPHON TRAPS

No. 7
S TRAP

Fig. 29774G

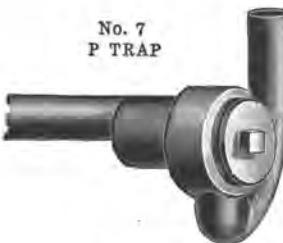
No. 7
P TRAP

Fig. 29774H

Size of Inlet	..... inches	1	1 1/4	1 1/4	1 1/2	1 1/2
" " Outlet	"	1 1/4	1 1/4	1 1/2	1 1/2	2
Price, No. 1. S. P. or 3/4 S.	each	2.00	2.00	2.50	2.50	2.70
" " 2, S. P. or 3/4 S.	"	2.30	2.30	2.90	2.90	3.00
" " 2, Running	"	2.30	2.30	2.90	2.90	3.00
" " 2, Bath	"	2.30	2.30	2.90	2.90	3.00
" " 13, P or R 6-inch Joist	"	2.50	2.50	3.00	3.00	3.00
" " 13, P Long 6 "	"	3.10	3.10	3.60	3.60	3.60
" " 7, S Short	"	2.30	2.30	2.70	2.70	2.70
" " 7, S Long	"	3.10	3.10	3.60	3.60	3.60
" " 7, S " with Coupling	"	3.50	3.50	4.00	4.00	4.00
" " 7, P "	"	2.50	2.50	3.00	3.00	3.00

Add for nickel-plated cover for all except No. 13, each 10 cents. Add for nickel-plated cover for No. 13, each 15 cents.

LEAD TRAPS

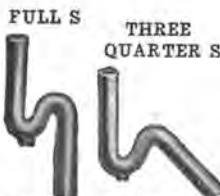


Fig. 14675A Fig. 14675B



Fig. 14675C



Fig. 14675E



Fig. 14675F

Description	STANDARD					SPECIAL (Medium)			EXTRA HEAVY				
	1½	2¼	3¼	5	6	2	3	4	2½	3½	4½	6	8
Weight, per ft., pounds	1½	2¼	3¼	5	6	2	3	4	2½	3½	4½	6	8
Size, inches	1¼	1½	2	3	4	1¼	1½	2	1¼	1½	2	3	4
Price, Full S, each	.58	.90	1.38	2.69	3.25	.73	1.03	1.65	.87	1.25	1.85	3.09	4.30
" ¾ S, "	.55	.81	1.30	2.62	3.07	.66	.94	1.53	.81	1.15	1.73	2.97	3.95
" ½ S, "	.51	.75	1.20	2.24	2.49	.64	.87	1.42	.77	1.09	1.57	2.58	3.25
" Bag, "	.68	1.08	1.73	3.35	4.77	.87	1.28	2.08	1.06	1.54	2.33	3.96	6.30
" Running, "	.48	.72	1.13	2.09	2.53	.58	.87	1.32	.70	1.03	1.46	2.35	3.28
" " Y, "	.52	.76	1.34	2.46	3.15	.65	.94	1.45	.74	1.09	1.61	2.88	4.05



Fig. 14675G Fig. 14675H



Fig. 14675J



Fig. 14675K



Fig. 14675L



Fig. 14675M

Description	STANDARD			SPECIAL (MEDIUM)			EXTRA HEAVY		
	1½	2¼	3¼	2	3	4	2½	3½	4½
Weight, per foot, pounds	1½	2¼	3¼	2	3	4	2½	3½	4½
Size, inches	1¼	1½	2	1¼	1½	2	1¼	1½	2
Full S, Long Inlet or Outlet, each	.93	1.36	2.00	1.19	1.64	2.40	1.44	1.95	2.69
¾ S, " " " " "	.85	1.19	1.76	1.04	1.43	2.08	1.28	1.72	2.33
½ S, " " " " "	.76	1.02	1.55	.95	1.22	1.83	1.14	1.50	2.02
Bag, " " " " "	1.09	1.58	2.34	1.38	1.91	2.80	1.67	2.24	3.11
Running, " " "	.82	1.15	1.67	1.01	1.41	1.98	1.23	1.65	2.18
" " Y, "	.83	1.15	1.82	1.05	1.45	2.01	1.23	1.52	2.23

COMBINATION FERRULES AND TRAPS

COMBINATION FERRULE



Fig. 1309A

COMBINATION BEND AND FERRULE



Fig. 1309B

COMBINATION FERRULES—LEAD AND IRON

Length.....	inches	4	4½	5	6	8	10	12
Price, 1½-inch, for 2-inch Cast Iron Pipe.....	each	....	.28	.36	.43	.51	.60	.67
" 1½ " " 2 " " " "	"	....	.28	.36	.43	.51	.60	.67
" 2 " " 2 " " " "	"	....	.28	.41	.46	.57	.67	.76
" 3 " " 3 " " " "	"	....	.42	.60	.67	.82	.98	1.10
" 4 " " 4 " " " "	"	....	.50	.72	.85	1.02	1.25	1.40

Length.....	inches	14	16	18	20	24	30	36
Price, 1½-inch, for 2 inch Cast Iron Pipe.....	each	.80	.90	1.00	1.10	1.30	....	....
" 2 " " 2 " " " "	"	.80	.86	.92	1.00	1.15	1.40	1.65
" 3 " " 3 " " " "	"	1.15	1.22	1.30	1.40	1.60	2.00	2.30
" 4 " " 4 " " " "	"	1.60	1.73	1.85	2.10	2.30	2.75	3.25

COMBINATION BENDS AND FERRULES—LEAD AND IRON

Length of Outlet End.....	inches	12	13	14	15	16	17	18	19	20
Price, 4-inch Standard Weight Short (5½-inch) Inlet, each		2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00
" 4 " " " Long (9½ ") " "	"	2.65	2.75	2.85	2.94	3.04	3.14	3.23	3.33	3.42
" 4 " " Extra Heavy" Short (5½ ") " "	"	2.59	2.71	2.83	2.95	3.07	3.19	3.31	3.43	3.54
" 4 " " " Long (9½ ") " "	"	3.12	3.24	3.36	3.48	3.60	3.72	3.84	3.96	4.08

ULCO NON-SYPHON TRAPS

CROSS SECTION



Fig. 1309C

FULL VIEW



Fig. 1309D

Style.....	STANDARD	MEDIUM	EXTRA HEAVY
Weight, per Running Foot.....lbs.	1½	2½	3½
Size.....inches	1¼	1½	2
Price, Full "S".....each	1.95	2.25	3.10
" ¾ " " " "	1.90	2.20	3.00
" ½ " " or "P" or Running....."	1.85	2.10	2.90
" Full "S," Long Inlet or Long Outlet "	2.30	2.70	3.70
" ¾ " " " "	2.20	2.55	3.50
" ½ " " or "P" " "	2.10	2.40	3.25

LEAD BENDS

REGULAR

Long

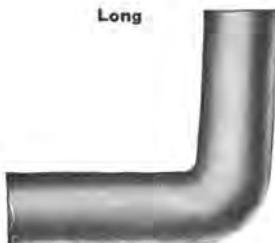


Fig. 3065A

Short



Fig. 3065B

Description	STANDARD				SPECIAL—MEDIUM				EXTRA HEAVY				
Weight, per Foot, pounds	1½	2¼	3¼	5	6	2	3	4	2½	3½	4½	6	8
Size	1¼	1½	2	3	4	1¼	1½	2	1¼	1½	2	3	4
Price, Long, each	.30	.50	.78	1.39	1.95	.41	.66	1.00	.50	.79	1.05	1.60	2.40

" Short .25 .38 .57 1.09 1.50 .31 .51 .69 .34 .62 .80 1.21 1.84

EXTENSION

Long



Fig. 3065C

Short



Fig. 3065D

Description	STANDARD				SPECIAL—MEDIUM				EXTRA HEAVY				
Wt., per Ft., pounds	1½	2¼	3¼	5	6	2	3	4	2½	3½	4½	6	8
Size	1¼	1½	2	3	4	1¼	1½	2	1¼	1½	2	3	4
Long Inlet, 12-in. Outlet, ea.	.46	.67	.99	1.73	2.15	.60	.89	1.24	.70	1.07	1.35	1.96	2.62
" " 15 "	" " ".54	".77	1.14	1.99	2.44	.70	1.03	1.42	.82	1.24	1.56	2.25	2.98
" " 18 "	" " ".62	.88	1.29	2.24	2.73	.80	1.17	1.61	.94	1.41	1.76	2.54	3.34
" " 20 "	" " ".67	.95	1.39	2.42	2.92	.87	1.26	1.74	1.02	1.52	1.90	2.74	3.58
Short " 12 "	" " ".40	.56	.79	1.39	1.70	.52	.75	.99	.60	.90	1.08	1.57	2.09
" " 15 "	" " ".47	.67	.94	1.65	2.00	.62	.89	1.17	.72	1.07	1.28	1.87	2.45
" " 18 "	" " ".55	.77	1.09	1.90	2.30	.72	1.03	1.36	.84	1.24	1.49	2.16	2.81
" " 20 "	" " ".60	.84	1.19	2.07	2.48	.79	1.12	1.49	.92	1.35	1.63	2.35	3.04

EXTRAS ON LONG AND SHORT EXTENDED BENDS

Description	STANDARD				SPECIAL—MEDIUM				EXTRA HEAVY				
Size	1¼	1½	2	3	4	1¼	1½	2	1¼	1½	2	3	4
Size inches													
Price for Each Inch of Excess Length over Listed Sizes, add to List of Nearest Listed Size.	.03½	.04½	.06½	.10½	.12	.04½	.06	.07½	.05	.07	.08½	.12	.15

Short inlet-ends are the same dimensions as inlets on short bends of corresponding size. Long inlet ends are the same as on long bends.

LEAD PIPE

SCALE OF WEIGHTS

IN COILS



Fig. 33699A

IN REELS



Fig. 33699B

WEIGHT PER FOOT				WEIGHT PER FOOT				WEIGHT PER FOOT			
Caliber Inches	Letter	Lbs.	Ozs.	Caliber Inches	Letter	Lbs.	Ozs.	Caliber Inches	Letter	Lbs.	Ozs.
3/8	AAA	1	12	3/4	AAA	4	12	1 1/2	Spec'l	8	0
3/8	AA	1	8	3/4	AA	3	8	1 1/2	AA	7	8
3/8	A	1	4	3/4	A	3	0	1 1/2	A	6	8
3/8	B	1	0	3/4	B	2	4	1 1/2	B	5	0
3/8	C	0	12	3/4	Spec'l	2	0	1 1/2	C	4	4
3/8	D	0	10	3/4	C	1	12	1 1/2	D	3	8
3/8	E	0	7	3/4	D	1	4	1 1/2	E	3	0
1/2	AAA	3	0	3/4	E	1	0	1 3/4	AAA	10	0
1/2	Spec'l	2	8	1	AAA	6	0	1 3/4	AA	8	8
1/2	AA	2	0	1	AA	4	12	1 3/4	A	7	0
1/2	A	1	12	1	A	4	0	1 3/4	Spec'l	6	8
1/2	Spec'l	1	8	1	B	3	4	1 3/4	B	6	0
1/2	B	1	4	1	C	2	8	1 3/4	C	5	0
1/2	C	1	0	1	D	2	0	1 3/4	D	4	0
1/2	D	0	12	1	E	1	8	2	AAA	11	12
1/2	E	0	9	1 1/4	AAA	6	12	2	AA	9	0
5/8	AAA	3	8	1 1/4	AA	5	8	2	A	8	0
5/8	AA	2	12	1 1/4	A	4	12	2	B	7	0
5/8	A	2	8	1 1/4	B	3	12	2	C	6	0
5/8	B	2	0	1 1/4	C	3	0	2	D	4	12
5/8	C	1	8	1 1/4	D	2	8	...	...	..	..
5/8	D	1	0	1 1/4	E	2	0	...	...	..	..
5/8	E	0	12	1 1/2	AAA	8	8	...	...	..	..

LEAD PIPE IN LENGTHS OF 10 FEET

WEIGHT, PER LENGTH, POUNDS

THICKNESS, INCHES

Size Inches	1/8	1/6	1/4	1/2
2 1/2	17	14	11	8
3	20	16	12	9
3 1/2	22	18	15	9
4	25	21	16	12
4 1/2	..	..	18	14
5	31	25	20	15
6	37	30	24	18

Lead and block tin furnished in 1/8 and 1/4-inch.

LEAD WASTE PIPES

Size Inches	Weight, per Ft. Pounds
1 1/2	2 and 3
2	3 " 4
3	3 1/2, 5 and 6
3 1/2	4
4	5, 6 and 8
4 1/2	6 and 8
5	8, 10 and 12
6	12

SHEET LEAD AND METALS

SHEET LEAD



Fig. 3817A

Weight per Square Foot Pounds	APPROXIMATE THICKNESS			AVERAGE SIZE OF SHEET, FEET	Average Weight per Roll Pounds
	Decimals Inches	Nearest Fraction Inches	Birmingham Gauge Number		
1½	.0255	1 3/8	23	7	20
2	.0340	3/2	20	7	20
2½	.0425	1 5/8	19	7	20
3	.049	7/4	18	7	20
3½	.0595	1 7/8	17	7	20
4	.0680	1 1/16	16	7	20
5	.0850	5/4	14	7	20
6	.095	3/2	13	7	20
7	.109	7/4	12	7	20
8	.125	1 1/8	11	7	20

Pig Lead



Fig. 3817B

Pig Tin



Fig. 3817C

Bar Lead



Fig. 3817D

DURE TIN



Fig. 3817E

Cake Lead



Fig. 3817F

Wiping Solder



Fig. 3817G

Half and Half Solder



Fig. 3817H

PRICES AT MARKET RATES

CAST IRON SOIL PIPE

FIVE-FOOT LENGTHS

SINGLE HUB



Fig. 17089A

Revised List Prices Adopted March 8, 1915

Size.....inches	2	3	4	5	6	7	8	10	12	15
Price, Standard ..per foot	.26	.35	.46	.58	.70	1.40	1.40	2.40	3.00	5.60
" Extra Heavy "	.40	.62	.84	1.10	1.30	2.20	2.20	3.60	4.40	8.00

DOUBLE HUB



Fig. 17089B

Size.....inches	2	3	4	5	6	7	8	10	12	15
Price, Standard ..per foot	.28	.37	.48	.62	.74	1.60	1.60	2.60	3.20	5.80
" Extra Heavy "	.42	.65	.88	1.14	1.36	2.40	2.40	3.80	4.60	8.40

APPROXIMATE WEIGHTS OF SOIL PIPE AND FITTINGS

Style.....	STANDARD							EXTRA HEAVY								
	2	3	4	5	6	8	10	12	2	3	4	5	6	8	10	12
Size.....inches																
Pipe, Ibs....per length	18	26	35	45	55	85	115	165	27 $\frac{1}{2}$	47 $\frac{1}{2}$	65	85	100	170	225	270
Quarter Bends, Ibs..each	4 $\frac{1}{2}$	7	10 $\frac{1}{2}$	13	16 $\frac{1}{2}$	33	54	58 $\frac{1}{2}$	6 $\frac{3}{4}$	10 $\frac{1}{2}$	15	19	23 $\frac{1}{2}$	52	80	95
Sixth " " "	4	6 $\frac{1}{2}$	9	11 $\frac{1}{2}$	14	30	30	48	6	9 $\frac{1}{2}$	13	16 $\frac{1}{2}$	20	44	50	90
Eighth " " "	3 $\frac{1}{2}$	6	8	10 $\frac{1}{2}$	13	24	38	42 $\frac{1}{2}$	5 $\frac{1}{2}$	8 $\frac{1}{2}$	12 $\frac{1}{2}$	15 $\frac{1}{2}$	18 $\frac{1}{2}$	40	56	80
T Branches " " "	7	11	14 $\frac{1}{2}$	18 $\frac{1}{2}$	23	33	42	102	10 $\frac{1}{4}$	15 $\frac{1}{2}$	21	26 $\frac{1}{2}$	32 $\frac{1}{2}$	60	75	166
San. T Branches " " "	7 $\frac{1}{2}$	12	16	20	24	49	100	...	11	16 $\frac{1}{2}$	22 $\frac{1}{2}$	28	34 $\frac{1}{2}$	80	135	210
Crosses " " "	9 $\frac{1}{4}$	14	19	23 $\frac{1}{2}$	28	40	70	100	13 $\frac{1}{2}$	19 $\frac{3}{4}$	27	33 $\frac{1}{2}$	40 $\frac{1}{2}$	92	116	176
San. Crosses " " "	10 $\frac{1}{2}$	15 $\frac{1}{2}$	20 $\frac{1}{2}$	25 $\frac{1}{2}$	31 $\frac{1}{2}$	52	...	...	14 $\frac{1}{2}$	22	29 $\frac{1}{2}$	36 $\frac{1}{2}$	44 $\frac{1}{2}$	79	161	...
Y Branches " " "	7 $\frac{1}{2}$	12	17	22	28	58	106	158	11	17	24	31 $\frac{1}{2}$	39 $\frac{1}{2}$	91	136	218
Half Y Branches, " " "	7	11	15	19	24	...	...	...	10 $\frac{1}{2}$	15 $\frac{1}{2}$	21 $\frac{1}{2}$	27 $\frac{1}{2}$	34	90	...	...
Double Y " " "	10 $\frac{1}{2}$	16	22 $\frac{1}{2}$	30	36 $\frac{1}{2}$	77	121	...	14 $\frac{1}{2}$	23	32	41 $\frac{1}{2}$	52	100	153	266
Double Hubs, " " "	4	5 $\frac{1}{2}$	7 $\frac{1}{2}$	9	10 $\frac{1}{2}$	16	21	35	5 $\frac{1}{2}$	8 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	14 $\frac{1}{2}$	30	35	45
S Traps, " " "	8 $\frac{1}{2}$	14	21	28 $\frac{1}{2}$	37 $\frac{1}{2}$	94	...	...	12	20	30	40 $\frac{1}{2}$	53 $\frac{1}{2}$	123	...	...
P " " "	7	12	17 $\frac{1}{2}$	24 $\frac{1}{2}$	31 $\frac{1}{2}$	80	...	...	10 $\frac{1}{2}$	17 $\frac{1}{2}$	25 $\frac{1}{2}$	34 $\frac{1}{2}$	45	100	...	...
Rung Traps, " " "	8 $\frac{1}{2}$	13 $\frac{1}{2}$	19 $\frac{1}{2}$	26	34	54	...	...	11 $\frac{1}{2}$	19	27 $\frac{1}{2}$	37	48	110	...	...
Reducers, " " "	...	4 $\frac{1}{2}$	6	7 $\frac{1}{2}$	9	8	21 $\frac{1}{2}$	28	...	6 $\frac{1}{2}$	8 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	15	28 $\frac{1}{2}$	48

To determine the right or left-hand inlet or outlet in bends, branches and offsets, place them with the hub facing toward you and with spigot lower than hub. On traps, place in regular position with the hub end nearest you.

Long quarter bends are measured from the inside of hub nearest spigot to end of spigot. Other bends are measured from end of spigot to nearest point on inside base of hub. Long T's, Y's, etc., are measured from the base of the hub on main to the end of spigot.

CAST IRON SOIL PIPE FITTINGS

BENDS

Quarter



Fig. 3005A

Fifth



Fig. 3005B

BENDS

Sixth



Fig. 3005E

Eighth



Fig. 3005F



Fig. 3005G

Size Inches	PRICE, EACH		PRICE, EACH		PRICE, EACH	
	Std.	Ex. Hy.	Std.	Ex. Hy.	Std.	Ex. Hy.
2	.40	.55	.45	.60	.40	.55
3	.55	.70	.80	1.00	.55	.70
4	.70	.85	.80	1.00	.70	.85
5	1.05	1.25	1.05	1.25	1.05	1.25
6	1.30	1.55	1.30	1.55	1.30	1.55
8	4.00	5.00	4.00	5.00	4.00	5.00
10	5.90	6.50	5.90	6.50	5.90	6.50
12	8.65	10.80	8.65	10.80	8.65	10.80

QUARTER BENDS
WITH R. H. SIDE INLET

Fig. 3005C

Size Inches	Size, Inlet Inches	PRICE, EACH		PRICE, EACH	
		Standard	Ex. Hy.	Standard	Ex. Hy.
2	2	1.25	1.55	1.25	1.55
3	2	1.25	1.55	1.25	1.55
3	3	1.25	1.55	1.25	1.55
4	2	1.25	1.55	1.25	1.55
4	3	3.10	3.85	3.10	3.85
4	4	3.10	3.85	3.10	3.85
5	2	3.70	4.60	3.70	4.60
5	3	3.70	4.60	3.70	4.60
5	4	3.70	4.60	3.70	4.60
6	2	4.30	5.40	4.30	5.40
6	3	4.30	5.40	4.30	5.40
6	4	4.30	5.40	4.30	5.40

DOUBLE HUB QUARTER BENDS



Fig. 3005D

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Std.	Ex. Hy.		Std.	Ex. Hy.
2	.75	.90	5	1.85	2.30
3	.95	1.15	6	2.45	3.05
4	1.20	1.40	.	....	....

PRICE, EACH

Size Inches	1/4-BEND		1/2-BEND		3/4-BEND	
	Std.	Ex. Hy.	Std.	Ex. Hy.	Std.	Ex. Hy.
2	.40	.45	.35	.40	.35	.40
3	.60	.75	.45	.55	.50	.70
4	.60	.75	.60	.75	.60	.70
5	1.05	1.25	.80	1.00	.80	1.00
6	1.30	1.55	1.05	1.25	1.00	1.25
8	4.00	5.00	4.00	5.00	4.00	5.00
10	5.90	6.50	5.90	6.50	5.90	6.50
12	8.65	10.80	8.65	10.80	8.65	10.80

QUARTER BENDS

With Low
Heel Inlet

Fig. 3005H

With High
Heel Inlet

Fig. 3005J

Size Inches	Size, Inlet Inches	PRICE, EACH	
		Standard	Ex. Hy.
2	2	1.25	1.55
3	2	1.25	1.55
3	3	1.25	1.55
4	2	1.25	1.55
4	3	3.10	3.85
4	4	3.10	3.85
5	2	3.70	4.60
5	3	3.70	4.60
5	4	3.70	4.60
6	2	4.30	5.40
6	3	4.30	5.40
6	4	4.30	5.40

DOUBLE HUB BENDS

Eighth

Sixteenth



Fig. 3005K



Fig. 3005L

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Std.	Ex. Hy.		Std.	Ex. Hy.
2	.75	.90	5	1.85	2.30
3	.95	1.15	6	2.45	3.05
4	1.20	1.40	.	....	....

CAST IRON SOIL PIPE FITTINGS

LONG QUARTER BENDS



Fig. 3006A

Size Inches	Length in Clear Inches	PRICE, EACH	
		Standard	Extra Heavy
2	12	.90	1.10
2	18	1.05	1.30
2	24	1.50	1.85
3	12	1.50	1.85
3	18	1.85	2.30
3	24	2.25	2.75
4	12	1.25	1.55
4	18	1.50	1.85
4	24	2.75	3.40
4	30	3.85	4.80
4	36	4.90	6.15
5	12	3.70	4.60
5	18	4.30	5.40
5	24	4.90	6.15
5	36	5.25	6.55
6	12	4.30	5.40
6	18	5.00	6.15
6	24	5.50	6.90
8	18	7.50	10.00

LONG EIGHTH BENDS



Fig. 3006B

2	12	.90	1.10
2	18	1.05	1.30
2	24	1.50	1.85
3	12	1.50	1.85
3	18	1.85	2.30
3	24	2.25	2.75
4	12	1.25	1.55
4	18	1.50	1.85
4	24	2.75	3.40
4	30	3.85	4.80
4	36	4.90	6.15
5	12	3.70	4.60
5	18	4.30	5.40
5	24	4.90	6.15
5	36	5.25	6.55
6	12	4.30	5.40
6	18	5.00	6.15
6	24	5.50	6.90
8	18	7.50	10.00

REILLY LONG SWEEP BENDS



Fig. 3006C



Fig. 3006D

Size Inches	Standard Plain	PRICE, EACH		
		Extra Heavy	with Foot Rest	Extra Heavy
4	2.80	3.50	4.50	
5	4.00	5.00	6.25	
6	4.80	6.00	7.50	
4x2	2.15	2.70	3.70	
5x4	2.80	3.50	4.75	

QUARTER BENDS

SANITARY
LONG
SWEEP

SHORT SWEEP



Fig. 3006E

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	LONG SWEEP	SHORT SWEEP		Stand- ard	Extra Heavy
2	.75	.90	.60	.75	
3	.95	1.15	.90	1.10	
4	1.25	1.55	1.15	1.40	
5	1.70	2.00	1.55	1.85	
6	2.75	3.40	2.50	3.10	
7	7.55	9.45	4.80	6.00	
8	6.00	7.50	6.80	8.50	
10	8.00	10.00	...	...

DOUBLE



Fig. 3006G

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2x2	1.50	1.85	4x2	2.80	3.45
3x2	2.45	3.05	4x3	2.80	3.45
3x3	2.55	3.20	4x4	2.80	3.45

CAST IRON SOIL PIPE FITTINGS

T BRANCHES

PLAIN



Fig. 3007A

WITH R. H.
SIDE INLET

Fig. 3007B

PLAIN

Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2x2	.55	.75	6x2	1.80	2.15
3x2	.75	.90	6x3	1.80	2.15
3x3	.85	1.10	6x4	1.80	2.15
4x2	.85	1.10	6x5	2.00	2.45
4x3	1.00	1.25	6x6	2.00	2.45
4x4	1.15	1.40	7	7.00	9.80
5x2	1.20	1.45	8	6.00	9.00
5x3	1.25	1.55	10	10.80	15.10
5x4	1.40	1.70	12	15.10	19.40
5x5	1.65	2.00	15	33.60	42.00

T BRANCHES

TAPPED FOR
IRON PIPE

Fig. 3007D

WITH HANDHOLE
AND COVER

Fig. 3007E

TAPPED FOR IRON PIPE

Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2	1 1/4	1 1/2	2	.70	.85
3	1 1/4	1 1/2	2	.85	1.10
4	1 1/4	1 1/2	2	1.00	1.25
5	1 1/4	1 1/2	2	1.60	2.00
6	1 1/4	1 1/2	2	2.50	3.10

WITH HANDHOLE CLEANOUT

Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2	1.05	1.25	5	2.45	3.05
3	1.70	2.15	6	3.70	4.60
4	1.85	2.30	8	5.00	7.50

LONG T BRANCHES



Fig. 3007F

WITH R. H. SIDE INLET

EXTRAS, ADD TO
ABOVE LIST, EACH

Size of Inlets Inches	Inlets	Brass Trap Screws		Size Inches	Length in Clear Inches	PRICE, EACH—	
		Ind. Inlets	Ind. Inlets			Stand- ard	Extra Heavy
2	1.00	1.50	2	12	1.20	1.50	
3	1.25	2.00	2	18	2.00	2.45	
4	1.50	2.50	2	24	2.25	2.75	
5	2.00	3.00	2	30	2.45	3.05	
6	2.50	3.50	2	36	2.70	3.35	
			3	12	1.45	1.80	
			3	18	2.60	3.25	
			3	24	3.10	3.85	
			3	30	3.55	4.45	
			3	36	4.05	5.05	
			4	12	2.80	3.50	
			4	18	3.50	4.30	
			4	24	4.10	5.05	
			4	30	4.65	5.85	
			4	36	5.35	6.60	
			5	18	4.20	5.25	
			5	24	4.95	6.15	
			5	30	5.70	7.10	

ALL HUB ENDS



Fig. 3007C

PRICE, EACH—

Size Inches	Standard	Extra Heavy		Size Inches	Length in Clear Inches	PRICE, EACH—	
		Heavy	Heavy			Stand- ard	Extra Heavy
2	2.25	2.75	5	36	6.60	8.15	
3	3.45	4.30	6	18	4.90	6.15	
4	4.65	5.85	6	24	5.80	7.25	
5	5.65	7.05	6	30	6.80	8.45	
6	7.35	9.20	6	36	7.70	9.55	

CAST IRON SOIL PIPE FITTINGS

SANITARY T BRANCHES



Fig. 3008A

LONG SANITARY T BRANCHES



Fig. 3008C

Size Inches	PRICE, EACH		' Size Inches	Length in Clear Inches	PRICE, EACH	
	Standard	Extra Heavy			Stand- ard	Extra Heavy
2x2	.55	.75	2	12	1.20	1.50
3x2	.75	.90	2	18	2.00	2.45
3x3	.85	1.10	2	24	2.25	2.75
4x2	.85	1.10	2	30	2.45	3.05
4x3	1.00	1.25	3	36	2.70	3.35
4x4	1.15	1.40	3	12	1.45	1.80
5x2	1.20	1.45	3	18	2.60	3.25
5x3	1.25	1.55	3	24	3.10	3.85
5x4	1.40	1.70	3	30	3.55	4.45
5x5	1.65	2.00	4	36	4.05	5.05
6x2	1.80	2.15	4	12	2.80	3.50
6x3	1.80	2.15	4	18	3.50	4.30
6x4	1.80	2.15	4	24	4.10	5.05
6x5	2.00	2.45	4	30	4.65	5.85
6x6	2.00	2.45	5	36	5.35	6.60
7	7.00	9.80	5	12	4.20	5.25
8	6.00	9.00	5	18	4.95	6.15
10	10.80	15.10	5	24	5.70	7.10
12	15.10	19.40	6	30	6.60	8.15
15	33.60	42.00	3	36	4.90	6.15
			6	24	5.80	7.25
			6	30	6.80	8.45
			6	36	7.70	9.55
			8	36	9.00	

SANITARY T BRANCHES

R. H. SIDE INLET



Fig. 3008B

SANITARY T BRANCHES
TAPPED FOR IRON PIPE

Fig. 3008D

— EXTRAS, ADD TO THE —
ABOVE LIST, EACH

Size Inches	Inlets	Brass Trap Screws Incl. Inlets	Size Inches	Thread Inches	PRICE, EACH	
					Standard	Extra Heavy
2	1.00	1.50	2	1 1/4, 1 1/2, 2	.75	.90
3	1.25	2.00	3	1 1/4, 1 1/2, 2	.95	1.10
4	1.50	2.50	4	1 1/4, 1 1/2, 2	1.25	1.55
5	2.00	3.00	5	1 1/4, 1 1/2, 2	1.85	2.30
6	2.50	3.50	6	1 1/4, 1 1/2, 2	2.95	3.70

CAST IRON SOIL PIPE FITTINGS

Y AND HALF Y BRANCHES



Fig. 3009A



Fig. 3009B

INVERTED Y BRANCHES



Fig. 3009F

Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy		Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2x2	.55	.75	6x2	1.80	2.15	2x2	1.00	1.25	5x4	3.10	3.85
3x2	.75	.90	6x3	1.80	2.15	3x2	1.40	1.85	5x5	3.40	4.60
3x3	.85	1.10	6x4	1.80	2.15	3x3	1.40	1.85	6x2	3.70	4.60
4x2	.85	1.10	6x5	2.00	2.45	4x2	1.70	2.15	6x3	3.70	4.60
4x3	1.00	1.25	6x6	2.00	2.45	4x3	1.70	2.15	6x4	4.95	6.15
4x4	1.15	1.40	7	7.00	9.80	4x4	1.70	2.15	6x5	4.95	6.15
5x2	1.20	1.45	8	6.00	9.00	5x2	2.45	3.05	6x6	4.95	6.15
5x3	1.25	1.55	10	10.80	15.10	5x3	2.45	3.05	...	...	...
5x4	1.40	1.70	12	15.10	19.40						
5x5	1.65	2.00	15	33.60	42.00						

WITH R. H. SIDE INLET



Fig. 3009C



Fig. 3009D

LONG Y BRANCHES



Fig. 3009G

Size Inches	EXTRAS, ADD TO THE ABOVE LIST, EACH		Size Inches	Length in Clear Inches		PRICE, EACH—
	Inlets	Brass Trap Screws Incl. Inlets		2	18	
2	1.00	1.50	2	24	2.25	2.75
3	1.25	2.00	3	30	2.45	3.05
4	1.50	2.50	3	36	2.70	3.35
5	2.00	3.00	3	12	1.45	1.80
6	2.50	3.50	3	18	2.60	3.25
			3	24	3.10	3.85
			3	30	3.55	4.45
			3	36	4.05	5.05

INVERTED Y
BRANCHES

TAPPED FOR IRON PIPE



Thread, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ and 2
inches.

Fig. 3009E

Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—		Size Inches	PRICE, EACH—	
	Stand- ard	Extra Heavy		Stand- ard	Extra Heavy		Stand- ard	Extra Heavy
2	1.40	1.70	5	2.80	3.50	5	30	5.70
3	2.00	2.45	6	3.40	4.25	6	36	6.60
4	2.20	2.75	...	...	...	6	18	8.15
						6	24	4.90
						6	30	6.15
						6	36	5.80
						6	42	7.25
						6	48	8.45
						6	54	9.55

CAST IRON SOIL PIPE FITTINGS

DOUBLE Y BRANCHES



Fig. 3010A

With Side Inlets



Fig. 3010B

DOUBLE HALF Y BRANCHES



Fig. 3010D

With Side Inlet



Fig. 3010E

PLAIN

Size In.	PRICE, EACH Stand- ard	Extra Heavy	Size In.	PRICE, EACH Stand- ard	Extra Heavy
2x2	1.25	1.55	6x2	6.15	7.70
3x2	1.65	2.00	6x3	6.15	7.70
3x3	1.65	2.00	6x4	6.15	7.70
4x2	1.80	2.15	6x5	6.16	7.70
4x3	1.80	2.15	6x6	6.15	7.70
4x4	1.80	2.15	7x7	10.50	14.70
5x2	4.95	6.15	8x8	9.00	13.50
5x3	4.95	6.15	10x10	16.20	22.65
5x4	4.95	6.15	12x10	22.70	29.15
5x5	4.95	6.15	.....	.....	.....

PLAIN

Size In.	PRICE, EACH Stand- ard	Extra Heavy	Size In.	PRICE, EACH Stand- ard	Extra Heavy
2x2	1.25	1.55	6x2	6.15	7.70
3x2	1.65	2.00	6x3	6.15	7.70
3x3	1.65	2.00	6x4	6.15	7.70
4x2	1.80	2.15	6x5	6.15	7.70
4x3	1.80	2.15	6x6	6.15	7.70
4x4	1.80	2.15	7x7	10.50	14.70
5x2	4.95	6.15	8x8	9.00	13.50
5x3	4.95	6.15	10x10	16.20	22.65
5x4	4.95	6.15	12x10	22.70	29.15
5x5	4.95	6.15	.....	.....	.....

WITH SIDE INLET

EXTRAS, ADD TO THE
ABOVE LIST, EACHBrass Trap
Screws
Incl. Inlets

Size Inches	Inlets	Inlets
2	1.00	1.50
3	1.25	2.00
4	1.50	2.50
5	2.00	3.00
6	2.50	3.50

WITH SIDE INLET

EXTRAS, ADD TO THE
ABOVE LIST, EACHBrass Trap
Screws
Incl. Inches

Size Inches	Inlets	Inlets
2	1.00	1.50
3	1.25	2.00
4	1.50	2.50
5	2.00	3.00
6	2.50	3.50

VENTILATING BRANCHES



Fig. 3010C

VENTILATING BRANCHES
TAPPED FOR IRON PIPE

Fig. 3010F

Size In.	PRICE, EACH Stand- ard	Extra Heavy	Size In.	PRICE, EACH Stand- ard	Extra Heavy
2x2	.90	1.10	5x4	4.35	5.40
3x2	1.15	1.40	5x5	4.35	5.40
3x3	1.15	1.40	6x2	6.15	7.70
4x2	1.15	1.40	6x3	6.15	7.70
4x3	1.40	1.85	6x4	6.15	7.70
4x4	1.40	1.85	6x5	6.15	7.70
5x2	4.35	5.40	6x6	6.15	7.70
5x3	4.35	5.40	.....	.....	.....

Size Inches	Thread Inches	Stand- ard	Extra Heavy
2	1 1/4, 1 1/2, 2	1.40	1.70
3	1 1/4, 1 1/2, 2	2.00	2.45
4	1 1/4, 1 1/2, 2	2.20	2.75
5	1 1/4, 1 1/2, 2	2.80	3.50
6	1 1/4, 1 1/2, 2	3.40	4.25

CAST IRON SOIL PIPE FITTINGS

CROSSES

PLAIN



Fig. 3011A

WITH SIDE
INLET

Fig. 3011B

SANITARY CROSSES

PLAIN



Fig. 3011D

WITH SIDE
INLET

Fig. 3011E

PLAIN

Size Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY	Size Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY
2x2	1.25	1.55	6x2	6.15	7.70
3x2	1.65	2.00	6x3	6.15	7.70
3x3	1.65	2.00	6x4	6.15	7.70
4x2	1.80	2.15	6x5	6.15	7.70
4x3	1.80	2.15	6x6	6.15	7.70
4x4	1.80	2.15	7	10.50	14.70
5x2	4.95	6.15	8	9.00	13.50
5x3	4.95	6.15	10	16.20	22.65
5x4	4.95	6.15	12x10	22.70	29.15
5x5	4.95	6.15	.....	.....	.....

WITH SIDE INLET

EXTRAS, FOR INLET TO BE
ADDED TO ABOVE LISTS

Size Inches	Price Each	Size Inches	Price Each
2	1.00	5	2.00
3	1.25	6	2.50
4	1.50	..	....

TAPPED FOR IRON PIPE



Fig. 3011C

PLAIN

Size Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY	Size Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY
2x2	1.25	1.55	5x5	4.95	6.15
3x2	1.65	2.00	6x2	6.15	7.70
3x3	1.65	2.00	6x3	6.15	7.70
4x2	1.80	2.15	6x4	6.15	7.70
4x3	1.80	2.15	6x5	6.15	7.70
4x4	1.80	2.15	6x6	6.15	7.70
5x2	4.95	6.15	8	9.00	13.50
5x3	4.95	6.15	10	16.20	22.65
5x4	4.95	6.15	12x10	22.70	29.15

WITH SIDE INLET

EXTRAS, FOR INLET TO BE
ADDED TO ABOVE LISTS

Size Inches	Price Each	Size Inches	Price Each
2	1.00	5	2.00
3	1.25	6	2.50
4	1.50	..	....

TAPPED FOR IRON PIPE



Fig. 3011F

Size Inches	Thread Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY
2	1 1/4, 1 1/2, 2	1.15	1.40
3	1 1/4, 1 1/2, 2	1.25	1.55
4	1 1/4, 1 1/2, 2	1.40	1.70
5	1 1/4, 1 1/2, 2	2.25	2.80
6	1 1/4, 1 1/2, 2	3.45	4.30

Size Inches	Thread Inches	PRICE, STAND- ARD	PRICE, EXTRA HEAVY
2	1 1/4, 1 1/2, 2	1.25	1.55
3	1 1/4, 1 1/2, 2	1.50	1.85
4	1 1/4, 1 1/2, 2	1.75	2.15
5	1 1/4, 1 1/2, 2	2.75	3.40
6	1 1/4, 1 1/2, 2	4.10	5.10

CAST IRON SOIL PIPE FITTINGS

OFFSETS



Fig. 3012A

INCREASERS



Fig. 3012B

HUB END TO GOVERN PRICE

Size In.	PRICE, EACH Std. Ex. Hy.						
2x 2	.60	.75	4x20	2.60	4.30	2x3	.90
2x 4	.60	.75	4x22	3.10	4.60	2x4	.90
2x 6	.75	.90	4x24	3.70	5.05	2x5	1.25
2x 8	.75	.90	4x26	4.35	5.45	2x6	1.85
2x10	1.00	1.25	5x 2	2.45	3.05	3x4	1.85
2x12	1.15	1.40	5x 4	2.45	3.05	3x5	1.85
2x14	1.25	1.55	5x 6	2.65	3.40	3x6	1.85
2x16	1.35	1.70	5x 8	3.00	3.80	4x5	1.85
2x18	1.70	2.15	5x10	3.50	4.00	4x6	1.85
2x20	2.00	2.45	5x12	3.65	4.45	4x8	1.85
2x22	2.20	2.75	5x14	5.05	6.30		
2x24	2.45	3.05	5x16	5.35	6.60		
2x26	2.70	3.35	5x18	5.85	7.25		
3x 2	.95	1.15	5x20	6.15	7.55		
3x 4	1.00	1.25	5x22	6.30	7.85		
3x 6	1.10	1.40	5x24	6.50	8.15		
3x 8	1.25	1.55	5x26	6.75	8.45		
3x10	1.50	1.85	6x 2	3.35	4.15		
3x12	1.65	2.00	6x 4	3.35	4.15		
3x14	1.90	2.30	6x 6	3.35	4.15		
3x16	2.10	2.60	6x 8	3.70	4.60		
3x18	2.30	2.90	6x10	4.30	5.40		
3x20	2.75	3.40	6x12	4.95	6.15		
3x22	3.10	3.85	6x14	6.15	7.70		
3x24	3.70	4.60	6x16	6.75	8.30		
3x26	4.15	5.20	6x18	7.10	8.75		
4x 2	1.00	1.25	6x20	7.40	9.20		
4x 4	1.00	1.25	6x22	7.70	9.65		
4x 6	1.10	1.40	6x24	8.10	10.10		
4x 8	1.25	1.55	6x26	8.45	10.55		
4x10	1.50	1.85	7x 4	10.10	12.60		
4x12	1.60	2.00	7x 8	12.30	15.40		
4x14	1.90	2.45	8x 4	8.00	11.00		
4x16	2.00	3.40	8x 6	9.60	12.00		
4x18	2.30	3.55	8x 8	10.40	13.00		

Add to above Lists for 2-inch Vent
or Heel or Side Inlet..... each 1.00

INCREASERS

TAPPED FOR IRON PIPE



Fig. 3012C



Fig. 3012D

Size In.	Tapped In.	PRICE, EACH		SHORT	
		INCREASER Std. Ex. Hy.	INCREASER Std. Ex. Hy.	INCREASER Std. Ex. Hy.	INCREASER Std. Ex. Hy.
2	1 1/4	.60	.75	.75	.90
2	1 1/2	.60	.75	.75	.90
3	1 1/2	1.40	1.70	.90	1.10
4	1 1/4	1.50	1.85	1.00	1.25
4	1 1/2	1.50	1.85	1.00	1.25
5	1 1/2	2.10	2.45	1.25	1.55
5	2	1.40	1.70	.90	1.10
5	2	1.50	1.85	1.00	1.25
5	2	2.10	2.45	1.25	1.55
6	2	2.40	3.00	1.85	2.30
4	3	1.85	2.30	1.40	1.75
5	3	2.10	2.60	1.60	2.00
5	4	2.50	3.10	......	...
6	4	2.90	3.60	......	...
6	5	3.30	4.10	......	...

CAST IRON SOIL PIPE FITTINGS

LONG INCREASERS

FOR CALKING



Fig. 3016A

TAPPED FOR IRON PIPE



Fig. 3016B

FOR CALKING

Size.....inches

2x3 2x4

	30	24	30	36	48	12	24	24	12	24
Price, Standard.....each	1.60	1.25	1.65	2.00	2.50	1.25	2.00	2.00	1.60	2.30
" Extra Heavy....."	2.00	1.55	2.00	2.45	3.10	1.55	2.45	2.45	2.00	2.85

Sizes.....inches

4x5 4x6

	30	36	24	30	36	48	12	30	48	...
Price, Standard.....each	2.00	3.70	3.70	3.70	4.30	4.95	1.95	5.45	12.30	...
" Extra Heavy....."	2.45	4.60	4.60	4.60	5.40	6.15	2.45	6.80	15.40	...

TAPPED FOR IRON PIPE

Spigot.....inches	4	4	4	4	4
Length....."	24	30	36	48	36
Thread....."	2	2	2	2	2
Price, Standard.....each	2.25	2.40	2.60	3.00	2.80
" Extra Heavy....."	2.75	3.00	3.25	3.75	3.50

STRAINER

PIPE REST

FLOOR PLATE



Fig. 3016C



Fig. 3016D



Fig. 3016E

PIPE HOOK



Fig. 3016F

FLOOR PLATES

Size.....inches	2	3	4	5	6	5	6
Price, Standard.....each	.40	.60	.75	.90	.80	1.00	1.00
" Extra Heavy....."	.50	.75	.90	1.00	1.00	1.25	1.25

PIPE RESTS

Size.....inches	2	3	4	5	6	8	10
Price, Plain Standard.....each	.30	.40	.40	.75	.95	1.75	2.15
" " Extra Heavy....."	.40	.45	.45	.90	1.15	2.25	3.25

STRAINERS

Size.....inches	2	3	4	5	6
Price, Standard.....each	.10	.15	.20	.25	.30

PIPE HOOKS

Size.....inches	2	3	4	5	6
Price.....each	.08	.11	.13	.16	.20

CAST IRON SOIL PIPE FITTINGS

VENT CAPS AND FRESH AIR INLETS



Fig. 3015A



Fig. 3015B

REDUCERS AND SLEEVES



Fig. 3015F



Fig. 3015G

VENT CAPS

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH
Std.	Ex. Hy.	Std.	Ex. Hy.
2	.60	.75	1.85
3	.70	.85	2.00
4	.90	1.10	6.00
		8	7.50

FRESH AIR INLETS

Size Inches	Length Inches	PRICE, EACH
Standard	Extra Heavy	
4	Regular	1.10
4	12	1.60

SINGLE AND DOUBLE HUBS

Single Hub



Fig. 3015C

Double Hub



Fig. 3015D

PLUGS



Fig. 3015E

Size Inches	SINGLE HUBS		DOUBLE HUBS		PRICE, EACH
Std.	Ex. Hy.	Std.	Ex. Hy.	Std.	Ex. Hy.
2	.50	.60	.40	.45	
3	.65	.90	.50	.75	
4	.70	.90	.60	.75	
5	1.25	1.55	1.00	1.25	
6	1.85	2.45	1.15	1.55	
7	3.50	4.90	3.50	4.90	
8	2.50	3.50	2.50	3.50	
10	3.90	4.85	3.80	4.85	
12			5.40	9.20	
15			11.90	21.00	

REDUCERS

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH
Std.	Ex. Hy.	Std.	Ex. Hy.
3x2	.40	45	.85
4x2	.40	.45	1.00
4x3	.45	.55	4.55
5x2	.60	.75	2.50
5x3	.60	.75	4.85
5x4	.60	.75	10.80
6x2	.60	.75	13.30
6x3	.85	1.00	22.30

SLEEVES

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH		
Std.	Ex. Hy.	Std.	Ex. Hy.		
2	.60	.75	7	3.50	4.90
3	.75	.90	8	2.50	3.50
4	.75	.90	10	3.80	4.85
5	1.25	1.55	12	5.40	9.20
6	1.85	2.30			

PLAIN PIPE BANDS



Fig. 3015H

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH		
Std.	Ex. Hy.	Std.	Ex. Hy.		
2	.90	1.10	5	1.35	1.70
3	1.00	1.25	6	1.60	2.00
4	1.15	1.40			

PIPE BANDS

With T Branch



Fig. 3015J



Fig. 3015K

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH		
Std.	Ex. Hy.	Std.	Ex. Hy.		
2x2	1.05	1.30	5x4	1.75	2.15
3x2	1.20	1.45	5x5	1.85	2.30
3x3	1.20	1.45	6x2	1.95	2.45
4x2	1.30	1.60	6x3	1.95	2.45
4x3	1.35	1.70	6x4	2.10	2.60
4x4	1.50	1.85	6x5	2.20	2.75
5x2	1.60	2.00	6x6	2.50	3.10
5x3	1.60	2.00			

CAST IRON SOIL PIPE FITTINGS

PLAIN TRAPS

THREE-QUARTER S



Fig. 5985A



Fig. 5985B



Fig. 5985C

Size.....	inches	2	3	4	5	6	8
Price, Standard.....	each	.90	1.15	1.50	4.30	4.95	10.00
" Extra Heavy.....	"	1.10	1.40	1.85	5.40	6.15	13.00

TRAPS WITH TOP VENT

FULL S

THREE-QUARTER S

HALF S



Fig. 5985D



Fig. 5985E



Fig. 5985F

Size.....	inches	2	3	3	4	4	4	5	5
Vent.....	"	2	2	3	2	3	4	2	3
Price, Standard.....	each	1.20	1.35	1.35	2.20	2.20	2.20	4.00	4.00
" Extra Heavy.....	"	1.50	1.70	1.70	2.75	2.75	2.75	5.00	5.00
Size.....	inches	5	5	6	6	6	6	6	...
Vent.....	"	4	5	2	3	4	5	6	...
Price, Standard.....	each	4.00	4.00	4.80	4.80	4.80	4.80	4.80	...
" Extra Heavy.....	"	5.00	5.00	6.00	6.00	6.00	6.00	6.00	...

TRAPS WITH HANDHOLE AND COVER

FULL S

THREE-QUARTER S

HALF S



Fig. 5985G



Fig. 5985H



Fig. 5985J

Size.....	inches	2	3	4	5	6	8
Price, Standard.....	each	1.25	1.85	2.50	4.95	5.55	10.75
" Extra Heavy.....	"	1.55	2.30	3.10	6.15	6.90	13.75

EXTRA FOR INLETS AND TRAP SCREWS

Size.....	inches	2	3	4	5	6
Add to list for Inlets without Brass Trap Screw.....		1.00	1.25	1.50	2.00	2.50
" " " " " with " " " "		1.50	2.00	2.50	3.00	3.50

CAST IRON SOIL PIPE FITTINGS

RUNNING TRAPS

PLAIN



Fig. 6027A

WITH HANDHOLE AND COVER



Fig. 6027B

Description.....

Size..... inches

Price, Standard..... each

" Extra Heavy..... "

Description.....

Size..... inches

Price, Standard..... each

" Extra Heavy..... "

PLAIN

2 3 4 5 6 8

.90 1.15 1.50 4.30 4.95 10.00

1.10 1.40 1.85 5.40 6.15 13.00

WITH HANDHOLE AND COVER

2 3 4 5 6 8

1.25 1.85 2.50 4.95 5.55 10.75

1.55 2.30 3.10 6.15 6.90 13.75

RUNNING TRAP
WITH HUB VENT

Fig. 6027C

RUNNING TRAP
WITH DOUBLE HUB VENT

Fig. 6027D

RUNNING TRAPS WITH HUB VENT

Size..... inches

2 3 4 5 6 7

Vent..... "

2 2, 3 2, 3, 4 2, 3, 4, 5 2 to 6 6

Price, Standard..... each

1.20 1.35 2.20 4.00 4.80 14.00

" Extra Heavy..... "

1.50 1.70 2.75 5.00 6.00 16.80

Size..... inches

8 8 10 10 12 15

Vent..... "

4 6, 8 6 8 6 6

Price, Standard..... each

11.60 12.00 19.45 23.00 29.35 67.00

" Extra Heavy..... "

14.50 15.00 25.90 29.00 36.70 84.00

RUNNING TRAPS WITH DOUBLE HUB VENT

Size..... inches

2 3 4 5 6 7

Vent..... "

2 2, 3 2, 3, 4 2, 3, 4, 5 2 to 6 6

Price, Standard..... each

1.60 1.80 2.60 4.80 5.60 16.80

" Extra Heavy..... "

2.00 2.25 3.25 6.00 7.00 19.60

Size..... inches

8 8 10 12 12 ...

Vent..... "

4 6 6, 8 6 8 ...

Price, Standard..... each

12.80 14.00 21.60 29.35 31.10 ...

" Extra Heavy..... "

16.00 17.00 28.10 36.70 38.90 ...

TRAP COVERS



Size..... inches

2 3 4 5 6 8 10

Price, Standard..... each

.25 .30 .40 .45 .55 .90 1.30

" Extra Heavy..... "

.30 .35 .50 .55 .65 1.05 1.60

Fig. 6027E

CAST IRON SOIL PIPE FITTINGS

SISSON INSERTABLE JOINTS



Fig. 3204A



CONNOLLY SADDLE HUBS

T SADDLE HUB



Fig. 3204C

Size Inches	PRICE, EACH	
	Standard	Extra Heavy
2x2	.75	.95
3x2	.80	1.00
3x3	.80	1.00
4x2	.80	1.00
4x3	.90	1.10
4x4	.90	1.10
5x2	.90	1.10
5x3	.95	1.15
5x4	1.00	1.25
5x5	1.00	1.25
6x2	1.00	1.25
6x3	1.00	1.25
6x4	1.00	1.25
6x5	1.05	1.30
6x6	1.15	1.40

With this fitting a most satisfactory connection can be made and labor and expense saved when a leak is discovered in a pipe or fitting already connected.

DIRECTIONS.—Cut out of soil pipe the length of fitting it is desired to insert and 11½ inches for this joint. Slip the lead ring which accompanies every joint, over the pipe above, push the joint up as far as possible and drop this joint down into it. The lead ring will drop into the joint and rest upon the shoulders inside. Put in the packing and the work is done.

Size Inches	PRICE, EACH	
	Standard	Extra Heavy
2	1.40	1.50
3	1.50	1.70
4	1.80	2.00
5	2.10	2.30
6	2.60	2.80

TRAP COVERS



Fig. 3204B

Size Inches	PRICE, EACH	
	Standard	Extra Heavy
2	.25	.30
3	.30	.35
4	.40	.50
5	.45	.55
6	.55	.65
8	.90	1.05
10	1.30	1.60

Y SADDLE HUB



Fig. 3204D

Size Inches	PRICE, EACH	
	Standard	Extra Heavy
2x2	.80	1.00
3x2	.90	1.10
3x3	.90	1.10
4x2	.90	1.10
4x3	.95	1.15
4x4	.95	1.15
5x2	.95	1.15
5x3	1.00	1.25
5x4	1.05	1.30
5x5	1.05	1.30
6x2	1.15	1.40
6x3	1.15	1.40
6x4	1.15	1.40
6x5	1.25	1.55
6x6	1.25	1.55

CAST IRON CLOSET BENDS

WITH ONE 2-INCH R. H.
HUB OPENING

Fig. 19388A

WITH ONE R. H. Y AND ONE
R. H. STRAIGHT TAPPED
OPENING

Fig. 19388D

Size Inches	Price Each	Size Inches	Tapped Inches	Price Each
4x14	2.40	4x14	1½	3.20
4x18	3.20	4x14	2	3.20
		4x18	1½	4.00
		4x18	2	4.00

WITH ONE R. AND L.
TAPPED OPENING

Fig. 19388B

WITH THREE TAPPED
OPENINGS

Fig. 19388E

Size Inches	Tapped Inches	Price Each
4x14	1½	2.40
4x14	2	2.40
4x18	1½	3.00
4x18	2	3.00

WITH ADJUSTABLE FLANGE
AND R. AND L. TAPPED
OPENINGSWITH TWO R. AND L.
TAPPED OPENINGS

Fig. 19388C



Fig. 19388F

Size Inches	Tapped Inches	Price Each	Size Inches	Tapped Inches	Price Each
4x14	1½	3.20	4x12½	1½	2.80
4x14	2	3.20	4x12½	2	2.80
4x18	1½	4.00	4x16	1½	3.00
4x18	2	4.00	4x16	2	3.00

VENT FITTINGS, FRESH AIR INLETS ETC.

MANHOFF'S VENT FITTINGS
HUB SPIGOT

Fig. 34449A



Fig. 34449B



No. 1



Fig. 34449C



No. 2



No. 3

MANHOFF'S SPECIAL IRON VENT FITTINGS

For connecting wrought iron pipe with soil pipe.

Price, 1 1/4 -inch 1.P. x 2-inch Spigot.....	each	.20
" 1 1/2 " " x 2 " "	"	.20
" 1 1/4 " " x 2 " Hub or 3-inch Spigot.....	"	.25
" 1 1/2 " " x 2 " " 3 " "	"	.25
" 2 " " x 2 " " 3 " "	"	.25
" 2 " " x 2 " Spigot.....	"	.35
" 1 1/4 " " x 3 " Hub or 4-inch Spigot.....	"	.35
" 1 1/2 " " x 3 " " 4 " "	"	.35
" 2 " " x 3 " " 4 " "	"	.35
" 1 1/4 " " x 4 " " 5 " "	"	.50
" 1 1/2 " " x 4 " " 5 " "	"	.50
" 2 " " x 4 " " 5 " "	"	.50

FRESH AIR INLETS

Price, No. 1, to Fit in Hub End of 2-inch Pipe.....	each	.25
" 1 " " " " " 3 " "	"	.25
" 1 " " " " " 4 " "	"	.25
" 1 " " " " " 5 " "	"	.40
" 2 " " " " " 4 " "	"	.25
" 3 " " " " " 4 " "	"	.40



Fig. 34449F

REFRIGERATOR DRAINS

Style.....	Plain	Galv.
Price, 8-inch Tapped 1 1/4 -inch.....each	.80	1.25
" 10 " " 1 1/2 "	1.25	1.75

ASH PIT OR CLEANOUT DOORS

Price, 7x 9 Inches.....	per dozen	6.00
" 8x 8 "	"	6.00
" 8x10 "	"	6.60
" 10x12 "	"	9.00
" 10x14 "	"	10.00
" 12x15 "	"	15.00



Fig. 34449G

CAST IRON DRAINAGE FITTINGS SCREWED FOR WROUGHT IRON PIPE

90° ELBOWS*Long Turn**Short Turn*

Fig. 41168A

Fig. 41168B

Size Inches	PRICE, EACH		PRICE, EACH	
	SHORT Black	TURN Galv.	LONG Black	TURN Galv.
1 1/4	.30	.52	.35	.60
1 1/2	.38	.67	.42	.72
1 1/2 x 1 1/4	.57	1.00		
2	.57	1.00	.65	1.15
2 x 1 1/2	1.20	2.10		
2 1/2	1.20	2.10	1.40	2.45
3	1.45	2.55	1.75	3.10
4	2.30	4.00	2.75	4.80
5	4.25	7.40	5.25	9.20
6	6.25	11.00	7.50	13.15
7	11.50	20.00	13.50	23.50
8	15.00	26.25	19.00	33.25
10	31.00	54.00	38.00	66.50
12	47.50	83.00	57.50	100.00

60° AND 45° ELBOWS
*60°**45° Short Turn*

Fig. 41168C

Fig. 41168D

Size Inches	PRICE, EACH		PRICE, EACH	
	SHORT Black	TURN Galv.	SIZE Inches	PRICE, EACH
1 1/4	.30	.52	5	4.25
1 1/2	.38	.67	6	6.25
2	.57	1.00	7	11.50
2 1/2	1.20	2.10	8	15.00
3	1.45	2.55	10	31.00
4	2.30	4.00		

45° ELBOWS

Size Inches	PRICE, EACH		PRICE, EACH	
	SHORT Black	TURN Galv.	SIZE Inches	PRICE, EACH
1 1/4	.30	.52	.35	.60
1 1/2	.38	.67	.42	.72
2	.57	1.00	.65	1.15
2 1/2	1.20	2.10	1.40	2.45
3	1.45	2.55	1.75	3.10
4	2.30	4.00	2.75	4.80
5	4.25	7.40	5.25	9.20
6	6.25	11.00	7.50	13.15
8	15.00	26.25	19.00	33.25

22 1/2° AND 11 1/4° ELBOWS*22 1/2°**11 1/4°*

Fig. 41168E

Fig. 41168F

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galv.		Black	Galv.
1 1/4	.30	.52	5	4.25	7.40
1 1/2	.38	.67	6	6.25	11.00
2	.57	1.00	7	11.50	20.00
2 1/2	1.20	2.10	8	15.00	26.25
3	1.45	2.55	10	31.00	54.00
4	2.30	4.00			

11 1/4° ELBOWS

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galv.		Black	Galv.
1 1/4	.30	.52	5	4.25	7.40
1 1/2	.38	.67	6	6.25	11.00
2	.57	1.00	7	11.50	20.00
2 1/2	1.20	2.10	8	15.00	26.25
3	1.45	2.55	10	31.00	54.00
4	2.30	4.00			

THREE-WAY ELBOWS

Fig. 41168G

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galv.		Black	Galv.
1 1/4	.75	1.25	5	8.25	14.50
1 1/2	.85	1.50	6	11.50	23.50
2	1.10	1.95	6x4	15.00	26.25
2 1/2	2.25	3.90	6x5	15.00	26.25
3	3.00	5.25			
4	5.00	8.75			
4x3	5.50	9.65			
5	7.50	13.15			
5x4	8.25				
6	13.50				
6x4	15.00				
6x5	15.00				

STREET ELBOWS

Size Inches	PRICE, EACH	
	Black	Galv.
1 1/4	.35	.60
1 1/2	.40	.70
2	.60	1.10

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT IRON PIPE

TEES



Fig. 41170A

REDUCING TEES



Fig. 41170C

Size Inches	PRICE, EACH	
	Black	Galv.
1 1/4	.45	.80
1 1/2	.55	1.00
2	.80	1.40
2 1/2	1.50	2.50
3	2.00	3.50
4	3.25	5.70
5	6.00	10.50
6	8.75	15.25
7	16.00	28.00
8	21.00	37.00
10	43.00	75.00
12	60.00	100.00

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH		
	Black	Galv.	Black		
2 x 1 1/2	.90	1.60	6x 5	9.60	16.75
2 1/2 x 1 1/2	1.65	2.75	7x 4	17.60	30.80
2 1/2 x 2	1.65	2.75	8x 4	23.00	40.70
3 x 1 1/2	2.20	3.85	8x 5	23.00	40.70
3 x 2	2.20	3.85	8x 6	23.00	40.70
4 x 2	3.60	6.30	8x 7	23.00	40.70
4 x 3	3.60	6.30	10x 5	47.30	82.50
5 x 2	6.60	11.55	10x 6	47.30	82.50
5 x 3	6.60	11.55	10x 7	47.30	82.50
5 x 4	6.60	11.55	10x 8	47.30	82.50
6 x 2	9.60	16.75	12x 8	65.00	110.00
6 x 3	9.60	16.75	12x 10	65.00	110.00
6 x 4	9.60	16.75	.....	.....	.....

S TRAPS



Fig. 41170B

P TRAPS



Fig. 41170D

Size Inches	PRICE, EACH	
	Black	Galv.
1 1/2	3.25	5.75
2	4.00	7.00
3	9.25	16.00
4	14.00	24.00
5	21.00	37.00
6	36.00	63.00

Size Inches	PRICE, EACH	
	Black	Galv.
1 1/2	1.70	3.00
2	2.20	3.85
3	6.25	10.95

Inlets on reducing tees are tapped, pitched $\frac{1}{4}$ inch to the foot.

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT IRON PIPE

90° Y BRANCHES

SHORT TURN TEE PATTERN



Fig. 41169A

Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.
1 1/4	.45 .80	5	6.50 11.35
1 1/2	.57 1.00	6	9.50 16.50
2	.85 1.50	7	17.50 30.50
2 1/2	1.80 3.15	8	23.00 40.00
3	2.20 3.85	10	47.00 82.00
4	3.50 6.15		

90° Y BRANCHES

LONG TURN TEE PATTERN



Fig. 41169C

Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.
1 1/4	.57 1.00	5	9.50 16.50
1 1/2	.70 1.22	6	20.00 35.00
2	1.10 1.95	7	30.00 52.50
2 1/2	2.40 4.20	8	40.00 70.00
3	3.35 5.85	10	55.00 90.00
4	6.00 10.50	12	80.00 140.00

REDUCING 90° Y BRANCHES

SHORT TURN TEE PATTERN



Fig. 41169B

Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.
1 1/2x1 1/4	.63 1.10	5x4	7.15 12.50
2 x1 1/4	.95 1.65	6x2	10.50 18.50
2 x1 1/2	.95 1.65	6x3	10.50 18.50
2 x2 1/2	2.00 3.50	6x4	10.50 18.50
2 1/2x1 1/4	2.00 3.50	6x5	10.50 18.50
2 1/2x1 1/2	2.00 3.50	7x4	19.00 33.25
2 1/2x2	2.00 3.50	8x3	25.50 44.50
3 x1 1/2	2.40 4.20	8x4	25.50 44.50
3 x2	2.40 4.20	8x5	25.50 44.50
4 x1 1/2	3.85 6.75	8x6	25.50 44.50
4 x2	3.85 6.75	8x7	25.50 44.50
4 x2 1/2	3.85 6.75	10x4	52.00 88.00
4 x3	3.85 6.75	10x6	52.00 88.00
3 x4	3.85 6.75	10x8	52.00 88.00
5 x1 1/2	7.15 12.50	12x4	80.00 145.00
5 x2	7.15 12.50	12x5	80.00 145.00
5 x3	7.15 12.50		

The inlets on above fittings are tapped, pitched $\frac{1}{4}$ inch to the foot.

REDUCING 90° Y BRANCHES

LONG TURN TEE PATTERN



Fig. 41169D

Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.
1 1/2x1 1/4	.80 1.40	6x3	22.00 38.50
2 x1 1/2	1.20 2.10	6x4	22.00 38.50
2 1/2x1 1/2	2.65 4.65	6x5	22.00 38.50
2 1/2x2	2.65 4.65	7x3	33.00 58.00
3 x1 1/2	3.75 6.55	7x4	33.00 58.00
3 x2	3.75 6.55	8x3	44.00 77.00
4 x1 1/2	6.60 11.55	8x4	44.00 77.00
4 x2	6.60 11.55	8x5	44.00 77.00
4 x2 1/2	6.60 11.55	8x6	44.00 77.00
4 x3	6.60 11.55	10x4	60.00 102.00
5 x1 1/2	10.50 18.50	10x6	60.00 102.00
5 x2	10.50 18.50	10x8	60.00 102.00
5 x3	10.50 18.50	12x4	85.00 150.00
5 x4	10.50 18.50	12x5	85.00 150.00
6 x2	22.00 38.50		

The inlets on above fittings are tapped, pitched $\frac{1}{4}$ inch to the foot.

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT IRON PIPE

45° Y BRANCHES



Fig. 41167A

DOUBLE 45° Y BRANCHES



Fig. 41167C

Size Inches	PRICE, EACH	Size Inches	PRICE, EACH	
	Black	Galv.	Black	Galv.
1	.45	.80	5	7.10
1 1/4	.52	.90	6	10.50
1 1/2	.65	1.15	7	19.00
2	.95	1.65	8	25.00
2 1/2	2.10	3.70	10	52.00
3	2.65	4.65	12	75.00
4	3.85	6.75	.....	.....

Size In.	PRICE, EACH	Size Inches	PRICE, EACH	
	Black	Galv.	Black	Galv.
1 1/4	.90	1.60	5	10.75
1 1/2	1.00	1.75	6	16.00
2	1.45	2.55	7	28.50
2 1/2	3.25	5.70	8	38.00
3	4.00	7.00	10	78.00
4	5.75	10.00	12	110.00

REDUCING 45° Y BRANCHES



Fig. 41167B

REDUCING DOUBLE 45° Y
BRANCHES

Fig. 41167D

Size Inches	PRICE, EACH	Size In.	PRICE, EACH	
	Black	Galv.	Black	Galv.
1 1/2x1 1/4	.72	1.25	7x3	21.00
2 x1 1/2	1.05	1.85	7x4	21.00
2 1/2x1 1/2	2.30	4.00	7x5	21.00
2 1/2x2	2.30	4.00	7x6	21.00
3 x1 1/2	2.90	5.10	8x3	27.50
3 x2	2.90	5.10	8x4	27.50
3 x2 1/2	2.90	5.10	8x5	27.50
4 x1 1/2	4.25	7.40	8x6	27.50
4 x2	4.25	7.40	8x7	27.50
4 x2 1/2	4.25	7.40	10x4	57.00
4 x3	4.25	7.40	10x5	57.00
5 x2	7.80	13.65	10x6	57.00
5 x3	7.80	13.65	10x7	57.00
5 x4	7.80	13.65	10x8	57.00
6 x2	11.50	20.00	12x4	30.00
6 x3	11.50	20.00	12x5	80.00
6 x4	11.50	20.00	12x6	80.00
6 x5	11.50	20.00	.....	.....

Size In.	PRICE, EACH	Size Inches	PRICE, EACH	
	Black	Galv.	Black	Galv.
1 1/2x1 1/4	1.10	1.90	6x5	17.50
2 x1 1/2	1.60	2.80	7x4	31.50
2 1/2x1 1/2	3.60	6.30	7x5	31.50
2 1/2x2	3.60	6.30	7x6	31.50
3 x1 1/2	4.40	7.70	8x3	42.00
3 x2	4.40	7.70	8x4	42.00
4 x2	6.35	11.00	8x5	42.00
4 x3	6.35	11.00	8x6	42.00
5 x2	11.75	20.50	8x7	42.00
5 x3	11.75	20.50	10x4	86.00
5 x4	11.75	20.50	10x5	86.00
6 x2	17.50	30.50	10x6	86.00
6 x3	17.50	30.50	10x7	86.00
6 x4	17.50	30.50	10x8	86.00

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT IRON PIPE

90° DOUBLE Y BRANCHES

SHORT TURN TEE PATTERN



Fig. 41171A

Size Inches	PRICE, EACH Black	EACH Galv.	Size Inches	PRICE, EACH Black	EACH Galv.
1 1/4	.70	1.22	5	9.50	16.50
1 1/2	.85	1.50	6	14.00	24.50
2	1.30	2.30	7	25.00	42.50
2 1/2	2.85	5.00	8	36.00	62.00
3	3.40	5.95	10	60.00	102.00
4	5.25	9.20	.....	.....	.....

90° DOUBLE Y BRANCHES

LONG TURN TEE PATTERN



Fig. 41171C

Size Inches	PRICE, EACH Black	EACH Galv.	Size Inches	PRICE, EACH Black	EACH Galv.
1 1/4	1.00	1.75	5	14.00	24.50
1 1/2	1.10	1.95	6	30.00	52.50
2	1.75	3.10	7	45.00	79.00
2 1/2	3.60	6.30	8	60.00	105.00
3	5.00	8.75	10	70.00	119.00
4	9.00	15.75	12	125.00	205.00

REDUCING 90° DOUBLE Y
BRANCHES

SHORT TURN TEE PATTERN



Fig. 41171B

Size Inches	PRICE, EACH Black	EACH Galv.	Size Inches	PRICE, EACH Black	EACH Galv.
1 1/2x1 1/4	.95	1.65	6x2	15.50	27.00
2 x1 1/4	1.50	2.60	6x3	15.50	27.00
2 x1 1/2	1.50	2.60	6x4	15.50	27.00
2 1/2x1 1/2	3.15	5.50	6x5	15.50	27.00
2 1/2x2	3.15	5.50	7x4	27.50	46.75
3 x1 1/2	3.75	6.55	8x3	40.00	68.00
3 x2	3.75	6.55	8x4	40.00	68.00
4 x2	5.75	10.00	8x5	40.00	68.00
4 x3	5.75	10.00	10x4	66.00	112.00
5 x2	10.50	18.50	10x6	66.00	112.00
5 x3	10.50	18.50	10x8	66.00	112.00
5 x4	10.50	18.50	.....	.....	.....

Inlets on above fittings are tapped, pitched $\frac{1}{4}$ -inch to the foot.

REDUCING 90° DOUBLE Y
BRANCHES

LONG TURN TEE PATTERN



Fig. 41171D

Size Inches	PRICE, EACH Black	EACH Galv.	Size Inches	PRICE, EACH Black	EACH Galv.
1 1/2x1 1/4	1.25	2.25	6x3	33.00	58.00
2 x1 1/2	1.90	3.35	6x4	33.00	58.00
2 1/2x1 1/2	4.00	7.00	6x5	33.00	58.00
2 1/2x2	4.00	7.00	7x4	50.00	85.00
3 x1 1/2	5.50	9.65	8x3	66.00	112.00
3 x2	5.50	9.65	8x4	66.00	112.00
4 x2	10.00	17.50	8x5	66.00	112.00
4 x3	10.00	17.50	8x6	66.00	112.00
5 x2	15.50	27.00	10x4	77.00	130.00
5 x3	15.50	27.00	10x6	77.00	130.00
5 x4	15.50	27.00	10x8	77.00	130.00
6 x2	33.00	58.00	.....	.....	.....

Inlets on above fittings are tapped, pitched $\frac{1}{4}$ -inch to the foot.

CESSPOOLS

CESSPOOLS WITH BELL TRAP
AND LOOSE STRAINER

Fig. 29700A

CESSPOOLS WITH BELL TRAP
AND HINGED STRAINERS

Fig. 29700C

Size Inches	Outlet Inches	PRICE, EACH	
		With Bell Trap	Without Bell Trap
4x4 Med.	1	.60	.50
6x6 Med.	2	.75	.60
6x6 Hvy.	2	1.00	.85
9x9 Med.	3, 4	1.00	.85
9x9 Hvy.	3, 4	1.50	1.35
12x12 Med.	3, 4	1.75	1.50
12x12 Hvy.	3, 4	2.50	2.25
13x13 Med.	3, 4	2.00	1.75
13x13 Hvy.	3, 4	3.00	2.75

Size Inches	Outlet Inches	PRICE, EACH	
		With Brass Tee	All Brass
6x6 Med.	2	1.00	2.00
6x6 Hvy.	2	1.25	
9x9 Med.	3, 4	1.35	3.50
9x9 Hvy.	3, 4	1.85	
12x12 Med.	3, 4	2.00	6.50
12x12 Hvy.	3, 4	3.00	
13x13 Med.	3, 4	2.50	
13x13 Hvy.	3, 4	3.50	

CESSPOOLS WITH BELL TRAP
AND LONG SPIGOT

Fig. 29700B

Size Inches	Outlet Inches	Length Spigot Inches	Price Each
4x4 Med.	1	4	1.00
6x6 Med.	2	4	1.25
6x6 Hvy.	2	4	1.50
9x9 Med.	3, 4	8	1.75
9x9 Hvy.	3, 4	8	2.25
12x12 Med.	3, 4	8	2.75
12x12 Hvy.	3, 4	8	3.50
12x12 Med.	3, 4	12	3.25
12x12 Hvy.	3, 4	12	4.00
13x13 Med.	3, 4	8	3.00
13x13 Hvy.	3, 4	8	4.00
13x13 Med.	3, 4	12	3.50
13x13 Hvy.	3, 4	12	4.50

CESSPOOLS WITH BELL TRAP
HINGED
SIDE OUTLET

Fig. 29700D

Size Inches	Outlet Inches	Price Each
6x6	2	1.35
9x9	3	2.25
13x13	4	4.75



Fig. 29700E

CELLAR TRAPS

Number ..	1	2
Size .. in.	9x9	12x12
Depth .. "	2 1/4	2 1/4
Price .. ea.	1.00	1.50

CESSPOOLS, HOPPERS, ETC.

PLAIN HYDRANT CESSPOOLS



Fig. 29699A

Size Inches	Depth Inches	Price Each
12x12	6	1.00
14x14	6	1.15
16x16	6	1.30

Connects with hub of 3 or 4 in. soil pipe.

HYDRANT CESSPOOLS
WITH BELL TRAP

Fig. 29699B

12x12	6	1.50
14x14	6	1.75
16x16	6	2.00

Connects with hub of 3 or 4 in. soil pipe.

SLOP HOPPERS WITH
BELL TRAP

Fig. 29699C

12x12	6	2.25
15x15	12	3.25
18x18	12	4.25

Regulary furnished with 2-inch outlet.
Can be furnished to fit hub of 4-inch soil
pipe, but without bell trap.

EXTRA HEAVY CESSPOOL
WITH BELL TRAP AND GRATING

Fig. 29699D

Size Inches	Depth Inches	Outlet Inches	Price Each
12	8	4	3.75
16	10	4	4.50

SEWER TRAP



Fig. 29699E

No.	Size Inches	Depth Inches	Price Each
1	16x16	10	2.50
2	20x20	12	4.00

SEWER MANHOLES
24-INCH OPENING

Fig. 29699F

Prices upon application.

JOSAM FLOOR AND ROOF DRAINS

No. 100
FLOOR OR SHOWER DRAINS

Fig. 33253A

To be used in all kinds of construction where no trap is required. All brass.

Size Strainer Inches	Size Outlet Inches	Price Each
2	2	6.50
3	2	7.00
3	3	8.00
4	3	9.50
5	4	11.00

No. 300
URINAL OR SHOWER DRAINS

Fig. 33253B

Particularly adapted for floors constructed of marble, tile, cement, or any composition where the construction will not permit, or where it is not desirable to place trap in same. This drain outlet can be used and an independent trap placed wherever the construction will permit. It is a cast iron body and brass strainer.

Size Strainer Inches	Size Outlet Inches	Price Each
4	2	6.00
5	3	8.00
6	4	9.50

Strainers furnished concave, convex or flat, and same can be adjusted to suit variation of floor thickness.

Soil pipe connectors extra.

No. 500
FLOOR DRAINS

Fig. 33253C

Floor drain or cesspool, with anti-tilting strainer. Especially useful for dairy, laundry, warehouse or factory buildings, also for drain on promenade roofs. All cast iron. Also brass grate if required, at additional price.

Size Strainer Inches	Size Outlet Inches	Price Each
8	4	6.00
11	6	9.00

Soil pipe connectors extra.

No. 400
ROOF DRAINS

Fig. 33253D

Roof drain with sediment cup. Having combined strainer and sediment cup, this drain can be used on concrete as well as wood construction flat roofs. Its advantages are: of catching all leakage which may occur between the drain and the construction, also of catching all tar, gravel or other sediment in strainer cup, which is detachable and easily removed. Tapped standard iron pipe thread. All cast iron.

Size	Outlet.in.	4	5	6	8
Price . . . each		12.00	14.00	16.00	20.00

JOSAM FLOOR DRAINS

No. 203A U. S. GOVERNMENT TYPE DRAINS**Fig. 33650A**

For shower, urinal and floor drains for floors of concrete, cement, tile, marble, or any composition construction. Seepage is carried back to drain pipe through the weep holes therein, thereby comprising double drainage.

Brass strainer and collar screws into body of drain, and is adjustable to suit variation and thickness of floor. The body is of heavy cast iron.

Size Strainer Outlet In.	Price Each	Size Strainer Outlet In.		Price Each
		In.	In.	
4 1½	10.50	5	3	15.00
5 1½	12.00	6	3	16.00
4 2	12.00	6	4	19.00
5 2	12.00	7	4	21.00
6 1½	12.50	8	4	23.00
6 2	13.00			

No. 2003A U. S. GOVERNMENT TYPE DRAINS**Fig. 33650B**

This drain is of special shallow type and made for use in toilet room floors, shower compartments, dressing room floors, as well as in any floor of a shallow depth of floor construction, where drains are required.

Body and trap are cast iron.

Size Strainer Inches	Size, Outlet Inches	Price Each
6	2	15.00
6	3	18.00

No. 203 DRAINS**Fig. 33650C**

For concrete, tile, marble, or any composition floor, especially designed for showers, urinals and floors where construction requires a swinging joint being made necessary by obstructions.

Size, Strainer.....	inches	4	5	6
Size Outlet....	"	2	2	2
Price.....each				11.00 12.00 13.00

Soil pipe connectors extra.

No. 2006A DOUBLE DRAINAGE URINAL TRAP DRAINS**Fig. 33650D**

This combined trap and drain has a particular advantage because of the double eccentric bushings. This feature permits proper alignment when roughing-in does not coincide with receptor due to distortions or irregularities. Especially constructed to be used with porcelain urinal stalls having recessed drip receptors.

Size Strainer.....	inches	4½	4½
" Outlet.....	"	2	3

Price.....each	14.00 16.00
----------------	--------------------

Soil pipe connectors with male or female thread may be furnished for all drains.

Size.....in.	2	3	4	5	6	8
Price.....each	.70	1.00	1.20	1.40	1.60	2.25

DEHN'S "ACME" DEEP SEAL FLOOR DRAINS

No. 3, PLAIN



Fig. 21288A

No. 5, WITH AUTOMATIC BACK WATER VALVE

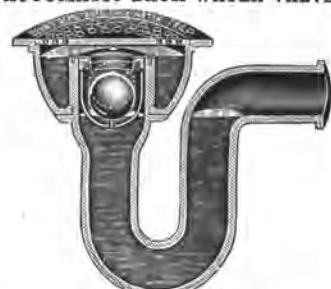


Fig. 21288B

**ADJUSTABLE
FLOOR DRAINS
AND CELLAR
TRAPS
WITH
CONTINUOUS
PIPE TRAP**
(Patented)

Depth of Water Seal Inches	Size of Outlet Inches	Diameter of Top Inches	Depth Over All Inches	Length Over All Inches	Receiver above Outlet of Trap, In.	Average Weight Pounds	PRICE, EACH		
							Iron Top and Strainer	Brass Top and Strainer	N. P. Brass Top and Strainer
4	2	8	10	12	2	20	2.50	7.50	9.50
4	3	9	13	14	2	30	5.00	11.00	13.00
4	4	12	15	21	2	50	8.00	16.00	19.00

No. 5, WITH AUTOMATIC BACK WATER VALVE

4	2	9	11	13	2	25	7.00	13.00	15.00
4	3	9	13	14	2	35	9.00	16.00	18.00
4	4	12	15	21	2	60	12.00	20.00	23.00

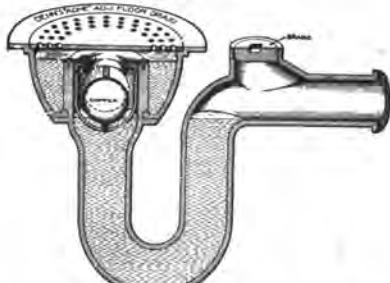
No. 7, WITH BACK WATER VALVE
AND CLEANOUT

Fig. 21288C

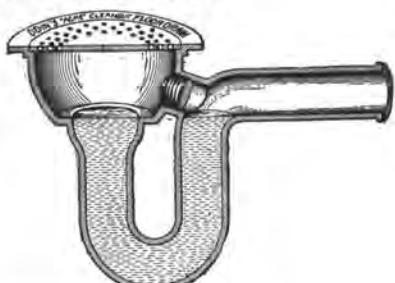
No. 8, ONE PIECE,
WITH CLEANOUT PLUG

Fig. 21288D

No. 7, WITH BACK WATER VALVE AND CLEANOUT

Depth of Water Seal Inches	Size of Outlet Inches	Diameter of Top Inches	Depth Over All Inches	Length Over All Inches	Receiver above Outlet of Trap, In.	Average Weight Pounds	PRICE, EACH		
							Iron Top and Strainer	Brass Top and Strainer	N. P. Brass Top and Strainer
4	2	9	11	18	2	30	8.00	14.00	16.00
4	3	10	13	20	2	40	11.00	18.00	20.00
4	4	12	15	22	2	65	15.00	23.00	26.00

No. 8, ONE PIECE, WITH CLEANOUT PLUG

4	2	9	11	18	2	25	3.50	9.50	11.50
4	3	10	13	20	2	35	6.00	13.00	15.00
4	4	12	15	24	2	60	9.00	17.00	20.00

CELLAR DRAINERS AND WATER HEATERS

AUTOMATIC CELLAR DRAINERS



Fig. 2918A

Is particularly adapted for use in pits, sumps, cellars, tanks, settling basins, or wherever it is desired to keep water or other liquids from going above a certain level. Is made of best bronze metal, except float, which is copper; can be regulated for any water pressure.

A foot valve in the strainer seals the suction pipe when the drainer stops working, holding the water in all the pipes, so that it is always primed ready to start instantly. It also prevents flooding of cellar if for any reason the water pressure is insufficient to operate the ejector. The operating valves open and close instantly by action of the water pressure.

No leather washers used; leather dries and causes leaks.

	Dis-	Size	*Cap.	
Supply charge	Over	Over	Gals.	
Pipe	Pipe	All	per	Hour
No.	In.	In.	In.	Price
1	1 1/2	1	16x10	115 to 650
2	3/4	1 1/4	20x12	180 " 1050
3	1	1 1/2	25x15	310 " 1650
4	1 1/4	2	28x16	450 " 2400
5	1 1/2	2 1/2	32x18	600 " 3200
6	2	3	36x20	780 " 4200
7	2 1/2	3 1/2	36x20	1000 " 5300
8	3	4	36x20	1250 " 6500

*20 to 80 pounds pressure, 3 to 18 feet elevation. Sizes 7 and 8 made to order only.

NOISELESS STEAM WATER HEATERS

Heaters Only



Fig. 2918B

The use of this heater does away with all noise such as otherwise occurs when heating a tank or barrel of water or other liquid with steam.

It has no couplings and loose parts to get out of order. Simply put a piece of pipe, 10 to 12 inches long, into the large end of the heater, and screw heater on to end of steam pipe and place below surface of the liquid, and it will heat it quickly and without waste of steam.

In order to secure a noiseless operation, it is necessary to use a tank of sufficient capacity.

Of special value to creameries, chemical works, breweries, etc.

In Operation



Size No.	Steam Pipe Inches	Dis- charge Pipe Inches	*Capac- ity Gallons	Price Each
F	1/4	3/8	50	1.50
G	3/8	1/2	60	1.75
H	1/2	3/4	75	2.00
J	3/4	1	100	2.50
K	1	1 1/4	125	3.00
L	1 1/4	1 1/2	175	4.00
M	1 1/2	2	250	5.00
N	2	2 1/2	500	8.00

*Gallons of water heated, 70 to 210 in 30 minutes with 70 pounds steam pressure.

HOT WATER SUPPLY BOILERS

Dry Top



Fig. 31567A

Wet Top



Fig. 31567B

DRY TOP

No.	Grate Area Sq. Ft.	Diam. Grate Inches	Inlets and Outlets Inches	Diam. Smoke Pipe Inches	Radiation Square Feet	Tank Capacity Gallons	Price Each
1010	.54	10	2	5	65	100	.....
1012	.78	12	2	6	130	200	.....
1015	1.22	15	2½	6	260	400	.....

WET TOP

No.	Grate Area Sq. Ft.	Diam. Grate Inches	Inlets and Outlets Inches	Diam. Smoke Pipe Inches	Radiation Square Feet	Tank Capacity Gallons	Price Each
1110	.54	10	2	5	100	150	.....
1112	.78	12	2	6	200	300	.....
1115	1.22	15	2½	6	325	500	.....
1117	1.57	17	2½	7	425	650	.....
1119	1.97	19	2½	7	525	800	.....
1122	2.52	21½	3	8	650	1000	.....

Brass water sections can be furnished for these boilers. Prices upon application.

HOT WATER STORAGE TANKS

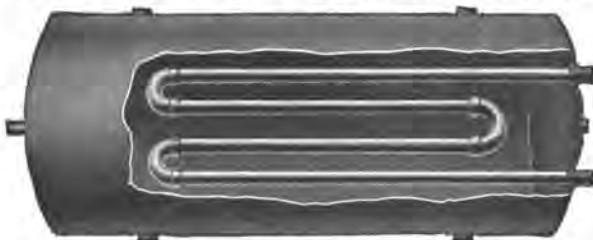


Fig. 29779A

Standard tanks, for working pressure not exceeding 65 pounds. Extra heavy tanks for working pressure not exceeding 100 pounds. Can be used either for vertical or horizontal installations. Black tanks regularly furnished. Extra charge for galvanized tanks.

STANDARD

Nom. Cap. Gal.	Diam. In.	Length Feet	Approx. Wt., Lbs.	Tappings Inches	Price Each
66	20	4	225	1½	87.00
85	20	5	260	1½	94.00
100	24	4	280	1½	102.00
120	24	5	325	1½	112.00
140	24	6	360	1½	122.00
150	30	4	425	2	134.00
180	30	5	490	2	147.00
220	30	6	555	2	157.00
250	30	7	620	2	176.00
295	30	8	685	2	197.00
315	36	6	740	2	203.00
365	36	7	825	2	228.00
420	36	8	910	2	248.00
525	36	10	1080	2	288.00
430	42	6	890	2	265.00
500	42	7	985	2	290.00
575	42	8	1080	2	315.00
720	42	10	1270	2	363.00
865	42	12	1460	2	408.00
1000	42	14	1650	2	456.00
....
....	....	....	....	....	1500
....	....	....	....	....	48
....	....	....	....	....	1700

EXTRA HEAVY

Nom. Cap. Gal.	Diam. In.	Length Feet	Approx. Wt., Lbs.	Tappings Inches	Price Each
120	24	5	410	1½	136.00
140	24	6	470	1½	147.00
180	30	5	530	2	171.00
220	30	6	600	2	185.00
250	30	7	670	2	203.00
295	30	8	750	2	227.00
315	36	6	950	2	265.00
365	36	7	1060	2	301.00
420	36	8	1170	2	327.00
525	36	10	1390	2	385.00
430	42	12	1140	2	336.00
500	42	14	1270	2	367.00
575	42	16	1400	2	402.00
720	42	18	1660	2	466.00
865	42	20	1940	2	530.00
1000	42	24	2200	2	595.00
575	42	8	1600	3	510.00
720	42	10	1900	3	582.00
865	42	12	2200	3	654.00
1000	42	14	2500	3	726.00
....	....	....	2800	3	798.00
....	....	....	3100	3	870.00

EXTRA FOR COILS

Size Tank In., Ft	No. of Pipe	Size Coil Inches	PRICE, COILS Plain	Size Tank In., Ft.	No. of Pipe	Size Coil Inches	PRICE, COILS Plain
20x4	4	1	29.00	36x 6	4	1½	51.00
20x5	4	1	30.50	36x 7	4	1½	54.00
24x4	4	1¼	35.5	36x 8	4	1½	57.50
24x5	4	1¼	37.00	36x10	4	1½	64.00
24x6	4	1¼	38.50	42x 6	4	1½	51.00
30x4	4	1¼	35.50	42x 7	4	1½	54.50
30x5	4	1¼	37.00	42x 8	4	1½	57.50
30x6	4	1¼	38.50	42x10	4	1½	64.00
30x7	4	1¼	40.00	42x12	4	1½	70.50
30x8	4	1¼	41.50	42x14	4	1½	77.00
....

Manholes: In head, 30.00. In shell, 45.00. Handholes: In head, 8.00. In shell, 8.00.
 Flanged Opening.....inches 2 2½ 3 3½ 4
 Price.....each 8.00 8.00 9.00 9.00 10.00

PIERCE DOWN DRAFT BOILERS

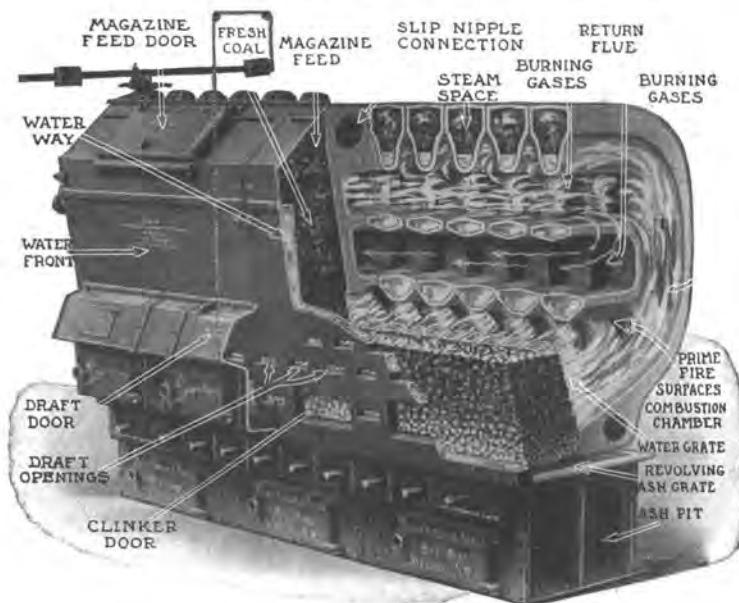


Fig. 31569A

STEAM

No.	No. of Sections	Foundation Length Inches	No. and Size of Outlets Inches	No. and Size of Returns Inches	Diam. Smoke Pipe Inches	Size of Chimney Flue Inches	Rating Square Feet	Price Each
S-844B	4	26 $\frac{3}{4}$	2-4	2-4	10	12x12	900	.....
S-845B	5	34	2-4	2-4	10	12x12	1250	.....
S-846B	6	41 $\frac{1}{4}$	2-4	2-4	10	12x16	1600	.....
S-847B	7	48 $\frac{1}{2}$	3-4	3-4	10	16x16	1950	.....
S-848B	8	55 $\frac{3}{4}$	3-4	3-4	12	16x16	2350	.....
S-849B	9	63	3-4	3-4	12	16x20	2800	.....
S-8410B	10	70 $\frac{1}{4}$	3-4	3-4	12	16x20	3300	.....
S-8411B	11	77 $\frac{1}{2}$	4-4	4-4	12	20x20	3800	.....
S-8412B	12	84 $\frac{3}{4}$	4-4	4-4	12	20x20	4300	.....

Total height, inclusive of trimmings, 73 inches. Height of water line, 54 inches.

Total width, 47 inches. Height to top outlet, 61 $\frac{1}{4}$ inches.

WATER

W-844B	4	26 $\frac{3}{4}$	2-4	2-4	10	12x12	1500	.....
W-845B	5	34	2-4	2-4	10	12x12	2050	.....
W-846B	6	41 $\frac{1}{4}$	2-4	2-4	10	12x16	2650	.....
W-847B	7	48 $\frac{1}{2}$	3-4	3-4	10	16x16	3200	.....
W-848B	8	55 $\frac{3}{4}$	3-4	3-4	12	16x16	3900	.....
W-849B	9	63	3-4	3-4	12	16x20	4625	.....
W-8410B	10	70 $\frac{1}{4}$	3-4	3-4	12	16x20	5450	.....
W-8411B	11	77 $\frac{1}{2}$	4-4	4-4	12	20x20	6275	.....
W-8412B	12	84 $\frac{3}{4}$	4-4	4-4	12	20x20	7100	.....

Total width, 47 inches. Height to top outlet, 61 $\frac{1}{4}$ inches.

THUCO FIREBOX HEATING BOILERS

WITH PLAIN FURNACE

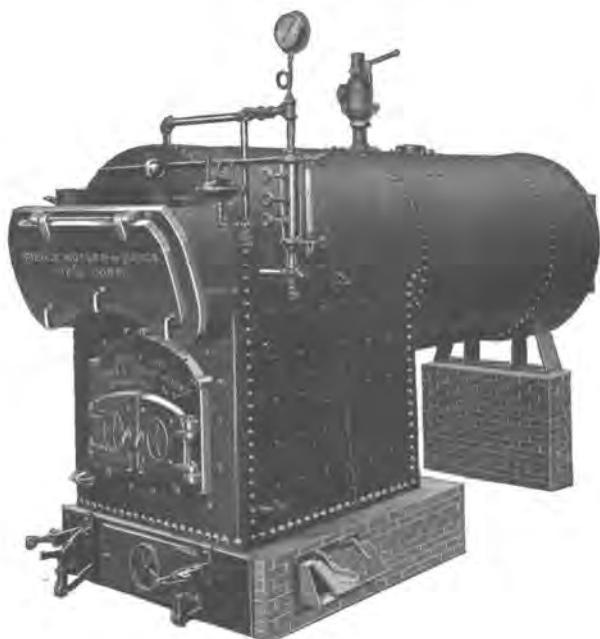


Fig. 6934A

Thuco Firebox Heating Boilers are designed for 15 pounds steam working pressure and to conform to the requirements of the American Society of Mechanical Engineers. Built in two different types—one type with plain furnace for use with anthracite coal; and a second with downdraft furnace for the smokeless combustion of bituminous coal.

Boilers are built throughout of flange steel 55000 pounds tensile strength.

Boilers Nos. 805 to 818 and Nos. 905 to 920 have the longitudinal seam of shell lap joint, single riveted; larger sizes, butt joint, double riveted. All other seams of all sizes of boilers are lap joint, single riveted.

All sizes of these boilers have a solid wrought steel ring in bottom of water leg, which is an improvement over the cast iron rings frequently used in same position. This construction is approved by most severe boiler laws for high pressure work and entirely removes any danger of cracking or failure of this ring when subjected to the necessary and heavy pressures exerted by the hydraulic riveting machines used in boiler construction.

The heads above the tubes are thoroughly braced in an approved and efficient manner. The sides of furnace are stayed with staybolts and the top of the furnace is supported by crown bars.

THUCO FIREBOX HEATING BOILERS

WITH PLAIN FURNACE

Boiler without fixtures is furnished with: Flanges and tapped openings for pipe connections; handhole and manhole fittings (manhole in shell, No. 808 and up); fusible plug; grate bearers; cast iron front with firedoor and liner; steel plate smokebox extension with cast iron door and frame, steel plate stack base with damper; back head with doors and liners, and flame plate.

Boiler complete is furnished, in addition to the above, with: Shaking grates; ashpit front with doors and anchors; small draft door with frame and anchors for side of ashpit; cast iron supporting stand for rear end boiler shell; five-inch steam gauge with siphon and cock; water column (no piping) with $\frac{1}{2}$ -inch water gauge and three $\frac{1}{2}$ -inch gauge cocks; pop safety valve; low pressure damper regulator (no piping or chains), fire tools consisting of hoe, poker and slice bar.

Anything not included in the above list of fixtures will be charged as an extra.

Blow-off, check and feed valves, piping for the water column, and piping and chains for the damper regulator are furnished, only if ordered, and at extra price.

Number of Size	805	808	810	812	813	814	815	816	818
Diameter Shell.....in.	42	48	54	54	54	60	60	60	60
Length Furnace	42	42	48	54	60	60	60	66	66
Width "	36	42	48	48	48	54	54	54	54
Ht. Furnace above Grates. "	34	37	40	40	40	43	43	43	43
Grate Area.....sq. ft.	10.5	12.2	16.0	18.0	20.0	22.5	22.5	24.7	24.7
Heating Surface....."	249	403	511	613	661	726	763	826	900
Cap. Steam Radiation "	2500	4000	5150	6500	7200	7600	8250	9000	10000
" Water " "	3750	6000	7725	9750	10800	11400	12375	13500	15000
Size Steam Outlet.....in.	5	6	6	6	6	8	8	8	8
" Return	3	4	4	4	4	6	6	6	6
*Diameter Smoke Flue.. "	16	20	22	22	22	26	26	26	26
*Length Smoke Flue... ft.	50	60	55	70	75	60	65	70	75
Weight without Fixtures lbs.	5830	7980	9270	10460	11160	11910	12130	12970	13670
" Complete..... "	7100	9370	10980	12320	13170	14120	14340	15340	16040
Number of Size	820	823	825	827	830	833	837	840	....
Diameter Shell.....in.	66	66	66	72	72	78	78	78	....
Length Furnace	66	72	72	72	78	72	84	84	....
Width "	60	60	60	66	66	72	72	72	....
Ht. Furnace above Grates. "	46	46	46	49	49	55	55	55	....
Grate Area.....sq. ft.	27.5	30.0	30.0	33.0	35.7	36.0	42.0	42.0	....
Heating Surface....."	1027	1158	1255	1349	1501	1644	1877	2017	....
Cap. Steam Radiation "	11500	13000	15000	16500	18000	20000	22500	25000	....
" Water " "	17250	19500	22500	24750	27000	30000	33750	37500	....
Size Steam Outlet.....in.	8	8	8	8	8	10	10	10	....
" Return	6	6	6	6	6	6	6	6	....
*Diameter Smoke Flue.. "	30	30	30	32	32	36	36	36	....
*Length Smoke Flue... ft.	65	75	80	75	85	75	85	90	....
Weight without Fixtures lbs.	16560	17940	19060	20840	22060	24520	26980	28890	....
" Complete..... "	19190	20750	21860	23920	25340	27840	30730	32640	....

Safety valves will be furnished to conform to the requirements of the state or municipality in which boiler is to be operated.

*Smoke flues and smoke connections or breechings are not furnished unless specially ordered and at extra price.

THUCO FIREBOX HEATING BOILERS

WITH DOWNDRAFT FURNACE

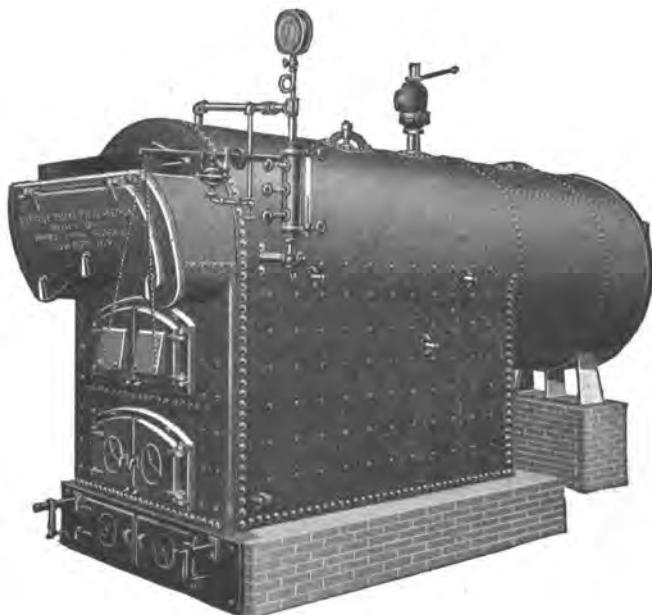


Fig. 6939B

Particular attention is directed to the water grate in the downdraft type of boiler. These grates consist of extra heavy cold drawn seamless steel tubes expanded into both the header and the front furnace head, with suitable brass screwed plugs positioned at each end for prompt and satisfactory cleaning and replacement. The header in the Thuco Boilers is a feature originated by us and forms an integral part of the boiler, and has the merit of providing additional area to the effective heating surface of boiler. It also acts as an additional supporting member for the crown sheet, and further admits of the flow of circulating water in its natural course through the water grates and directly upward into the boiler through ample sized openings provided in the crown sheet for that purpose. This design and arrangement assures that the durability of the header is equal to any other part of the boiler, which is an important advantage. Due to the strong circulation of water, there is little opportunity for sediment to accumulate in the header, but these boilers have handholes provided on each side of the boiler for removing any accumulation that may occur.

Boilers Nos. 808, 908 and larger sizes have manhole in top of shell. All sizes have handholes properly located to provide greatest accessibility for prompt and thorough cleaning.

THUCO FIREBOX HEATING BOILERS

WITH DOWNDRAFT FURNACE

Boiler without fixtures is furnished with: Flanges and tapped openings for pipe connections; handhole and manhole fittings (manhole in shell, No. 908 and up); fusible plug; grate bearers; two sets cast iron fire doors with liners and frames, the upper fire doors provided with hinged damper doors; steel plate smokebox extension with cast iron door and frame, steel plate stack base with damper; back head with doors and liners, and flame plate; water grates complete with header and cleanout plugs.

Boiler complete is furnished, in addition to the above, with: Shaking grates; ashpit front with doors and anchors; cast iron supporting stand for rear end boiler shell; five-inch steam gauge with siphon and cock; water column, (no piping), with $\frac{1}{2}$ -inch water gauge and three $\frac{1}{2}$ -inch gauge cocks; pop safety valve; low pressure damper regulator, (no piping or chains); fire tools consisting of hoe, poker and slice bar.

Anything not included in the above list of fixtures will be charged as an extra.

Blow-off, check and feed valves, piping for the water column, and piping and chains for the damper regulator are furnished, only if ordered, and at extra price.

Number of Size	905	908	910	912	913	914	915	916
Diameter Shell.....in.	42	48	54	54	54	60	60	60
Length Furnace	66	66	74	78	84	84	85	90
Width "	36	42	48	48	48	54	54	54
Ht. Furnace above Lower Grate.."	41	44	47	47	47	50	50	50
Length Grates"	42	42	48	54	60	60	60	66
Grate Area, A. S. M. E. Rating	sq. ft.	13.1	15.3	20.0	22.5	25.0	28.1	28.1
Heating Surface"	"	258	408	517	597	622	718	765
Capacity Steam Radiation	"	2625	4100	5200	6100	6500	7500	8200
Water ""	"	3938	6150	7800	9150	9750	11250	12300
Size Steam Outlet	in.	5	6	6	6	6	8	8
Return"	"	3	4	4	4	4	6	6
*Diameter Smoke Flue	"	16	20	22	22	22	26	26
*Length Smoke Flue	feet	40	50	50	60	60	50	55
Weight without Fixtures .. pounds	6610	8820	10290	11300	11850	13260	13660	14760
Complete"	"	7880	10230	12010	13170	13870	15480	15880
Number of Size	918	920	923	925	927	930	933	937
Diameter Shell.....in.	60	60	66	66	66	72	72	72
Length Furnace	92	96	97	104	108	102	104	114
Width "	54	54	60	60	60	66	66	66
Ht. Furnace above Lower Grate.."	50	50	53	53	53	56	56	56
Length Grates"	66	72	72	78	84	78	78	88
Grate Area, A. S. M. E. Rating	sq. ft.	30.9	33.7	37.5	40.6	43.7	44.6	44.6
Heating Surface"	"	901	1009	1154	1286	1330	1500	1662
Capacity Steam Radiation	"	10250	12000	13500	15250	16000	18000	20000
Water ""	"	15375	18000	20250	22875	24000	27000	30000
Size Steam Outlet	in.	8	8	8	8	10	10	10
Return"	"	6	6	6	6	6	6	6
*Diameter Smoke Flue	"	26	26	30	30	30	32	32
*Length Smoke Flue	feet	70	75	65	75	80	75	85
Weight without Fixtures .. pounds	15370	16670	20180	21480	22790	24000	24470	26550
Complete"	"	17770	19230	23040	24300	26000	27300	27740
30230								

Safety valves will be furnished to conform to the requirements of the state or municipality in which boiler is to be operated.

*Smoke flues and smoke connections or breechings are not furnished unless specially ordered and at extra price.

THUCO LOW WATER LINE SMOKELESS BOILERS

30-INCH GRATE

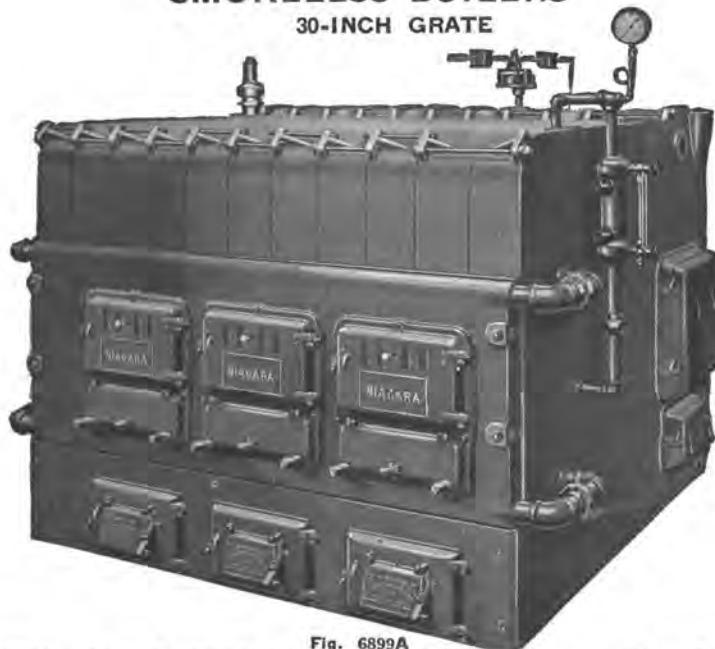


Fig. 6899A

Grate Area Feet	Outlets No. and Size, In.	Inlets No. and Size, In.	Foundation Size Inches	Smoke Collar Inches	STEAM BOILER			WATER BOILER			Price Each
					No.	Rating	Price Each	No.	Rating	Price Each	
6.0	2-6	2-6	45x64	12	S-305	1600	550.00	W-305	2650	525.00	
7.5	2-6	2-6	52x64	12	S-306	2000	650.00	W-306	3300	625.00	
9.0	2-6	2-6	59x64	12	S-307	2400	750.00	W-307	3950	725.00	
10.5	2-6	2-6	66x64	12	S-308	2800	850.00	W-308	4600	825.00	
12.0	2-6	2-6	73x64	12	S-309	3200	950.00	W-309	5250	925.00	
13.5	2-6	2-6	80x64	12	S-310	3600	1050.00	W-310	5900	1025.00	
15.0	2-6	2-6	87x64	16	S-311	4000	1150.00	W-311	6550	1125.00	
16.5	2-6	2-6	94x64	16	S-312	4400	1250.00	W-312	7200	1225.00	
18.0	2-6, 1-4	2-6	101x64	16	S-313	4800	1350.00	W-313	7850	1325.00	
19.5	2-6, 1-4	2-6	108x64	16	S-314	5200	1450.00	W-314	8500	1425.00	
21.0	2-6, 1-4	2-6	115x64	16	S-315	5600	1550.00	W-315	9150	1525.00	
22.5	2-6, 1-4	2-6	122x64	16	S-316	6000	1650.00	W-316	9800	1625.00	
24.0	2-6, 1-4	2-6	129x64	20	S-317	6400	1750.00	W-317	10450	1725.00	
25.5	2-6, 1-4	2-6	136x64	20	S-318	6800	1850.00	W-318	11100	1825.00	
27.0	2-6, 1-4	2-6	143x64	20	S-319	7200	1950.00	W-319	11750	1925.00	
28.5	2-6, 1-4	2-6	150x64	20	S-320	7600	2050.00	W-320	12400	2025.00	
Ht. Water Line				Width Each Chimney		Ht. Water Line				Width Each Chimney	
No. In.				Section In.		No. In.				Section Inches	
305	43	54	52	7	12x12x35	313	43	54	52	7	16x18x50
306	43	54	52	7	12x12x40	314	43	54	52	7	16x18x60
307	43	54	52	7	12x12x50	315	43	54	52	7	16x20x40
308	43	54	52	7	12x16x40	316	43	54	52	7	16x20x50
309	43	54	52	7	12x16x50	317	43	54	52	7	18x20x60
310	43	54	52	7	12x16x60	318	43	54	52	7	18x20x70
311	43	54	52	7	16x16x40	319	43	54	52	7	20x20x60
312	43	54	52	7	16x16x50	320	43	54	52	7	20x20x70

THUCO LOW WATER LINE SMOKELESS BOILERS

45-INCH GRATE

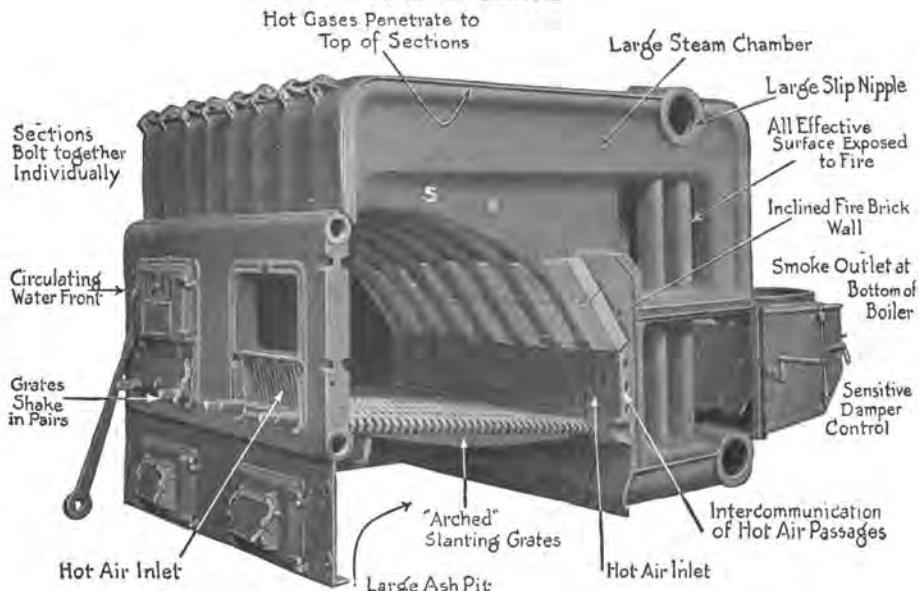


Fig. 6901A

Grate Area	Outlets No. and Size In.	Inlets No. and Size In.	Foundation	Smoke Pipe	STEAM BOILER			WATER BOILER		
					Size Inches	No.	Rating	Price Each	No.	Rating	Price Each
10.90	2-6	2-6	52x82	16	S-456	3750	\$950.00	W-456	6200	\$925.00
13.08	2-6	2-6	59x82	16	S-457	4500	1100.00	W-457	7450	1075.00
15.26	2-6	2-6	66x82	16	S-458	5250	1250.00	W-458	8700	1225.00
17.44	2-6	2-6	73x82	16	S-459	6000	1400.00	W-459	9950	1375.00
19.62	2-6	2-6	80x82	16	S-460	6750	1550.00	W-460	11200	1525.00
21.80	2-6	2-6	87x82	20	S-461	7500	1700.00	W-461	12450	1675.00
23.98	2-6	2-6	94x82	20	S-462	8250	1850.00	W-462	13700	1825.00
26.16	2-6, 1-4	2-6	101x82	20	S-463	9000	2050.00	W-463	14950	2000.00
28.34	2-6, 1-4	2-6	108x82	20	S-464	9750	2250.00	W-464	16200	2200.00
30.52	2-6, 1-4	2-6	115x82	20	S-465	10500	2450.00	W-465	17450	2400.00
32.70	2-6, 1-4	2-6	122x82	25	S-466	11250	2650.00	W-466	18700	2600.00
34.88	2-6, 2-4	2-6	129x82	25	S-467	12000	2850.00	W-467	19950	2800.00
37.06	2-6, 2-4	2-6	136x82	25	S-468	12750	3050.00	W-468	21200	3000.00
39.24	2-6, 2-4	2-6	143x82	25	S-469	13500	3250.00	W-469	22450	3200.00
41.42	2-6, 2-4	2-6	150x82	25	S-470	14250	3450.00	W-470	23700	3400.00

No.	Ht. Water Line In.	Ht. Depth In.	Width Each Section Inches	Chimney Recommended Inches	STEAM BOILER			WATER BOILER			
					No.	Ht. Line In.	Depth In.	Width Each Section Recommended Inches	No.	Ht. Line In.	
456	48	60	74	7	16x16x60	464	48	60	74	7	20x20x70
457	48	60	74	7	16x16x70	465	48	60	74	7	20x24x70
458	48	60	74	7	16x18x60	466	48	60	74	7	24x24x70
459	48	60	74	7	16x18x70	467	48	60	74	7	24x24x80
460	48	60	74	7	18x18x70	468	48	60	74	7	24x26x80
461	48	60	74	7	18x20x60	469	48	60	74	7	26x26x80
462	48	60	74	7	18x20x70	470	48	60	74	7	26x26x90
463	48	60	74	7	20x20x60	***	**	**	**	**	20x20x60

AMERICAN BOILERS

FOR STEAM AND VAPOR

26 Series



Fig. 1736A

32 and 40 Series



Fig. 1736B

FOR WATER

26 Series



Fig. 1736C

32 and 40 Series



Fig. 1736D

See following pages for dimensions, capacities, etc.

AMERICAN STEAM BOILERS

No.	No. of Sections	Grate Area Sq. Ft.	*Length Boiler In.	Height Incl. Headers In.	Width Incl. Headers In.	No. and Size Outlets In.	No. and Size Inlets In.	Smoke Pipe In.	Water Line In.	Ratings Sq. Ft.	Price Each
S214	4	3.31	47	56½	45	2-3	2-3	12 x 6¾	40½	600	.....
S215	5	4.44	55	56½	45	2-3	2-3	12 x 6¾	40½	800	.....
S216	6	5.58	63	56½	45	2-3	2-3	12 x 6¾	40½	1000	.....
S217	7	6.72	71	58	45	2-4	2-3	12 x 6¾	40½	1200	.....
S265	5	5.44	55	64½	51	2-3	2-3	14 x 8¾	47½	1100	.....
S266	6	6.83	63	64½	51	2-4	2-4	14 x 8¾	47½	1400	.....
S267	7	8.25	71	64½	51	2-4	2-4	14 x 8¾	47½	1700	.....
S268	8	9.61	79	64½	51	2-4	2-4	14 x 8¾	47½	2000	.....
S325	5	6.78	55	67	59¼	2-4	2-4	15¾x11¼	49	1400	.....
S326	6	8.50	63	67	59¼	2-5	2-5	15¾x11¼	49	1750	.....
S327	7	10.22	71	67	59¼	2-5	2-5	15¾x11¼	49	2100	.....
S328	8	11.95	79	67	59¼	2-5	2-5	15¾x11¼	49	2450	.....
S329	9	13.66	87	67	59¼	2-5	2-5	15¾x11¼	49	2800	.....
S405	5	8.53	55	69¼	66½	2-4	2-4	18 x12¾	51	1900	.....
S406	6	10.70	63	69¼	66½	2-5	2-5	18 x12¾	51	2400	.....
S407	7	12.86	71	69¼	66½	2-5	2-5	18 x12¾	51	2900	.....
S408	8	15.03	79	69¼	66½	2-5	2-5	18 x12¾	51	3400	.....
S409	9	17.19	87	69¼	66½	2-5	2-5	18 x12¾	51	3900	.....
S4010	10	19.36	95	69¼	66½	2-5	2-5	18 x12¾	51	4400	.....
S466	6	12.90	68	82	79	2-6	2-6	22 x16¾	55¾	3750	.....
S467	7	15.48	76	82	79	2-6	2-6	22 x16¾	55¾	4500	.....
S468	8	18.06	84	82	79	2-6	2-6	22 x16¾	55¾	5250	.....
S469	9	20.64	92	82	79	2-6	2-6	22 x16¾	55¾	6000	.....
S4610	10	23.22	100	82	79	2-6	2-6	22 x16¾	55¾	6750	.....
S4611	11	25.80	108	82	79	2-6	2-6	22 x16¾	55¾	7500	.....
S4612	12	28.38	116	82	79	2-6	2-6	22 x16¾	55¾	8250	.....
S4613	13	30.96	124	82	79	2-6	2-6	22 x16¾	55¾	9000	.....

*These figures are the over all dimensions, including shaker arms and smoke hood.

AMERICAN WATER BOILERS

No.	No. of Sections	Grate Area Sq. Ft.	*Length Boiler In.	Height Incl. Headers In.	Width Incl. Headers In.	No. and Size Outlets In.	No. and Size Inlets In.	Smoke Pipe In.	Ratings Sq. Ft.	Price Each
W214	4	3.31	47	56 $\frac{1}{8}$	45	2-3	2-3	12 x 6 $\frac{3}{4}$	1000	.....
W215	5	4.44	55	56 $\frac{1}{8}$	45	2-3	2-3	12 x 6 $\frac{3}{4}$	1325	.....
W216	6	5.58	63	56 $\frac{1}{8}$	45	2-3	2-3	12 x 6 $\frac{3}{4}$	1650	.....
W217	7	6.72	71	58	45	2-4	2-3	12 x 6 $\frac{3}{4}$	2000	.....
W265	5	5.44	55	64 $\frac{1}{2}$	51	2-3	2-3	14 x 8 $\frac{3}{4}$	1825	.....
W266	6	6.83	63	64 $\frac{1}{2}$	51	2-4	2-4	14 x 8 $\frac{3}{4}$	2325	.....
W267	7	8.25	71	64 $\frac{1}{2}$	51	2-4	2-4	14 x 8 $\frac{3}{4}$	2825	.....
W268	8	9.61	79	64 $\frac{1}{2}$	51	2-4	2-4	14 x 8 $\frac{3}{4}$	3325	.....
W325	5	6.78	55	67	59 $\frac{1}{4}$	2-4	2-4	15 $\frac{3}{4}$ x11 $\frac{1}{4}$	2325	.....
W326	6	8.50	63	67	59 $\frac{1}{4}$	2-5	2-5	15 $\frac{3}{4}$ x11 $\frac{1}{4}$	2900	.....
W327	7	10.22	71	67	59 $\frac{1}{4}$	2-5	2-5	15 $\frac{3}{4}$ x11 $\frac{1}{4}$	3475	.....
W328	8	11.95	79	67	59 $\frac{1}{4}$	2-5	2-5	15 $\frac{3}{4}$ x11 $\frac{1}{4}$	4050	.....
W329	9	13.66	87	67	59 $\frac{1}{4}$	2-5	2-5	15 $\frac{3}{4}$ x11 $\frac{1}{4}$	4625	.....
W405	5	8.53	55	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-4	2-4	18 x12 $\frac{3}{4}$	3150	.....
W406	6	10.70	63	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-5	2-5	18 x12 $\frac{3}{4}$	3975	.....
W407	7	12.86	71	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-5	2-5	18 x12 $\frac{3}{4}$	4800	.....
W408	8	15.03	79	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-5	2-5	18 x12 $\frac{3}{4}$	5625	.....
W409	9	17.19	87	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-5	2-5	18 x12 $\frac{3}{4}$	6450	.....
W4010	10	19.36	95	69 $\frac{1}{4}$	66 $\frac{1}{2}$	2-5	2-5	18 x12 $\frac{3}{4}$	7275	.....
W466	6	12.90	68	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	6200	.....
W467	7	15.48	76	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	7450	.....
W468	8	18.06	84	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	8700	.....
W469	9	20.64	92	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	9950	.....
W4610	10	23.22	100	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	11200	.....
W4611	11	25.80	108	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	12450	.....
W4612	12	28.38	116	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	13700	.....
W4613	13	30.96	124	82	79	2-6	2-6	22 x16 $\frac{3}{4}$	14950	.....

*These figures are the over all dimensions, including shaker arms and smoke hood.

PEBCO BOILERS

Steam



Fig. 7604A

Water



Fig. 7604B

No.	Height to Top Outlet In.	Inside Diam. Firepot *In.	STEAM			Outlet			Price Each	No.	WATER		
			Grate Area *Sq. Ft.	Coal Capacity *Lbs. In.	Water Line In.	Inlets *In.	Steam Rating Sq. Ft.	Height to Top Outlet In.			Water Rating Sq. Ft.	Price Each	
S913	50 $\frac{1}{8}$	17	1.57	125	44 $\frac{5}{8}$	2-2 $\frac{1}{2}$	325	....	W913	47 $\frac{3}{4}$	525	....
S923	53 $\frac{3}{8}$	19	1.97	147	47 $\frac{1}{4}$	2-2 $\frac{1}{2}$	425	....	W923	51	675	....
S933	53 $\frac{3}{8}$	21 $\frac{1}{2}$	2.52	193	47 $\frac{1}{8}$	2-3	500	....	W933	51 $\frac{3}{4}$	825	....
S943	54 $\frac{3}{4}$	25	3.27	255	48 $\frac{3}{8}$	2-3	650	....	W943	52	1075	....
S953	55 $\frac{1}{4}$	28	4.27	335	48 $\frac{7}{8}$	2-4	900	....	W953	52 $\frac{1}{2}$	1500	....
S963	56 $\frac{3}{4}$	31	5.24	395	50	2-4	1250	....	W963	53 $\frac{3}{4}$	2000	....
S914	54 $\frac{5}{8}$	17	1.57	125	49 $\frac{1}{8}$	2-2 $\frac{1}{2}$	375	....	W914	52 $\frac{1}{4}$	600	....
S924	54 $\frac{7}{8}$	19	1.97	147	51 $\frac{1}{8}$	2-2 $\frac{1}{2}$	475	....	W924	55 $\frac{1}{2}$	800	....
S934	58 $\frac{1}{8}$	21 $\frac{1}{2}$	2.52	193	51 $\frac{5}{8}$	2-3	550	....	W934	55 $\frac{3}{4}$	925	....
S944	59 $\frac{1}{8}$	25	3.27	255	52 $\frac{3}{4}$	2-3	725	....	W944	56 $\frac{1}{2}$	1200	....
S954	59 $\frac{5}{8}$	28	4.27	335	53 $\frac{1}{4}$	2-4	1000	....	W954	56 $\frac{3}{4}$	1650	....
S964	61 $\frac{1}{4}$	31	5.24	395	53	2-4	1400	....	W964	58 $\frac{3}{4}$	2250	....
S935	62 $\frac{5}{8}$	21 $\frac{1}{2}$	2.52	193	56 $\frac{1}{8}$	2-3	600	....	W935	60 $\frac{1}{4}$	1000	....
S945	63 $\frac{1}{4}$	25	3.27	255	56 $\frac{7}{8}$	2-3	800	....	W945	60 $\frac{3}{4}$	1325	....
S955	64	28	4.27	335	57 $\frac{3}{8}$	2-4	1100	....	W955	61 $\frac{1}{4}$	1800	....
S965	66 $\frac{3}{4}$	31	5.24	395	60	2-4	1550	....	W965	63 $\frac{3}{4}$	2500	....

*These measurements apply to water boilers also.

PEBCO BOILERS



Fig. 31582A

The base is generously high, providing a capacious ash pit and ample draft area. The grates are triangular in section and are arranged so that the entire area can be shaken to dislodge ashes and clinkers. Two shaker bars have projections extending through the front of the base which fit into the socket of the shaker handle. The adjacent bars are connected to the shaker bars by cogs, so that each shaker bar and its neighbors move as a unit. The projections on the shaker bars are triangular in section, and when their flat sides are uppermost, the grate surface is level. A grate bar can be removed or inserted very conveniently.

BASE AND TRIANGULAR GRATES

Special attention is directed to the illustration on this page showing the new base, with triangular grates, which is being furnished with these boilers.

The grate is designed after the well-known triangular pattern, having vertical finger bars around the grate bars, which has met with universal approval. The clinker door is one of ample dimensions and well fitted.

SHOWING REMOVABLE GRATES



FIRE POT



Fig. 31582B

FIRE POT

The illustration on the left is a perspective view of the fire pot section. The crown sheet or furnace top is not cast integral with the fire pot, as is common in other round type boilers. This makes a simpler casting, free from internal strains due to irregular expansion and contraction.

If through unintentional neglect, or for any other cause, a crack should develop in the crown sheet, the damage can be repaired on a Peaco by the replacement of a comparatively light and inexpensive part.

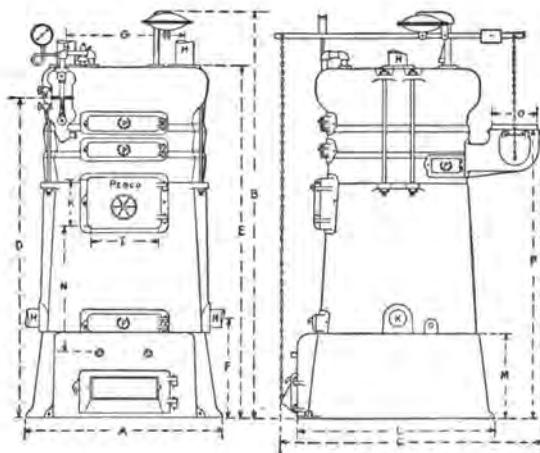
On the other hand, if the crown sheet were cast as a part of the fire pot, the replacement would be a much more serious proposition, not only as regards the cost of the new part itself, but also as regards the time and labor involved in its installation.

A high combustion chamber which gives the gases distilled from the coal ample opportunity to become thoroughly ignited before coming in contact with the crown sheet, and the comparatively colder flue surface, is the one feature that, more than any other, makes for efficiency.

On the smallest size of boiler, which has a fire pot 18 inches in diameter, the vertical distance from the grate to the crown sheet, that is, the inside height of the furnace, is $26\frac{1}{4}$ inches. On the other and larger sizes, this distance is $29\frac{1}{4}$ inches.

PEBCO STEAM BOILERS

TABLE OF MEASUREMENTS



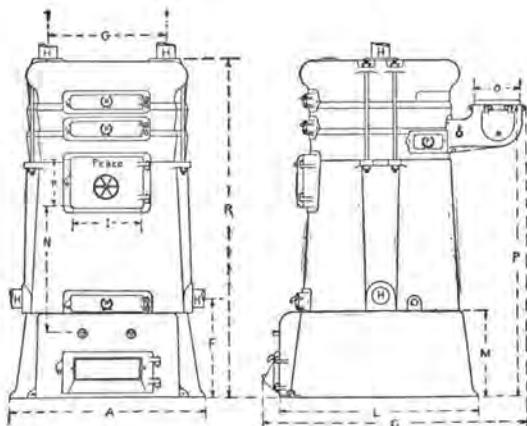
ALL DIMENSIONS ARE GIVEN IN INCHES

No.	A	B	C	D	E	F	G	H
S-913	25 $\frac{3}{4}$	58 $\frac{5}{8}$	34 $\frac{1}{2}$	44 $\frac{1}{8}$	50 $\frac{1}{8}$	15 $\frac{1}{4}$	14 $\frac{1}{2}$	2 $\frac{1}{2}$
S-914	25 $\frac{3}{4}$	63 $\frac{1}{8}$	34 $\frac{1}{2}$	49 $\frac{1}{8}$	54 $\frac{5}{8}$	15 $\frac{1}{4}$	14 $\frac{1}{2}$	2 $\frac{1}{2}$
S-923	29	61 $\frac{7}{8}$	39 $\frac{1}{2}$	47 $\frac{1}{4}$	53 $\frac{3}{8}$	16	16 $\frac{1}{8}$	2 $\frac{1}{2}$
S-924	29	66 $\frac{3}{8}$	39 $\frac{1}{2}$	51 $\frac{1}{8}$	57 $\frac{7}{8}$	16	16 $\frac{1}{8}$	2 $\frac{1}{2}$
S-933	31 $\frac{1}{2}$	62 $\frac{1}{8}$	43	47 $\frac{1}{8}$	53 $\frac{5}{8}$	16 $\frac{3}{8}$	19 $\frac{3}{8}$	3
S-934	31 $\frac{1}{2}$	66 $\frac{5}{8}$	43	51 $\frac{1}{8}$	58 $\frac{1}{8}$	16 $\frac{3}{8}$	19 $\frac{3}{8}$	3
S-935	31 $\frac{1}{2}$	71 $\frac{1}{2}$	43	56 $\frac{1}{8}$	62 $\frac{5}{8}$	16 $\frac{3}{8}$	19 $\frac{3}{8}$	3
S-943	34 $\frac{1}{2}$	63 $\frac{1}{4}$	46	48 $\frac{3}{8}$	54 $\frac{3}{4}$	17	22 $\frac{1}{2}$	3
S-944	34 $\frac{1}{2}$	67 $\frac{7}{8}$	46	52 $\frac{3}{4}$	59 $\frac{1}{8}$	17	22 $\frac{1}{2}$	3
S-945	34 $\frac{1}{2}$	71 $\frac{3}{4}$	46	56 $\frac{7}{8}$	63 $\frac{1}{4}$	17	22 $\frac{1}{2}$	3
S-953	38	63 $\frac{3}{4}$	49 $\frac{1}{2}$	48 $\frac{7}{8}$	55 $\frac{1}{4}$	18 $\frac{1}{4}$	25 $\frac{3}{4}$	4
S-954	38	68 $\frac{1}{8}$	49 $\frac{1}{2}$	53 $\frac{1}{4}$	59 $\frac{5}{8}$	18 $\frac{1}{4}$	25 $\frac{3}{4}$	4
S-955	38	72 $\frac{1}{2}$	49 $\frac{1}{2}$	57 $\frac{3}{8}$	64	18 $\frac{1}{4}$	25 $\frac{3}{4}$	4
S-963	41 $\frac{1}{4}$	66 $\frac{3}{4}$	53 $\frac{1}{2}$	50	56 $\frac{3}{4}$	18 $\frac{5}{8}$	29	4
S-964	41 $\frac{1}{4}$	71 $\frac{3}{4}$	53 $\frac{1}{2}$	55	61 $\frac{1}{4}$	18 $\frac{5}{8}$	29	4
S-965	41 $\frac{1}{4}$	76 $\frac{3}{4}$	53 $\frac{1}{2}$	60	66 $\frac{3}{4}$	18 $\frac{5}{8}$	29	4

For balance of dimensions see water boilers.

PEBCO WATER BOILERS

TABLE OF MEASUREMENTS



ALL DIMENSIONS ARE GIVEN IN INCHES

No.	I	K	L	M	N	O	P	R
W-913	9½	7½	26¾	12¾	17½	7	45½	47¾
W-914	9½	7½	26¾	12¾	17½	7	45½	52¼
W-923	10½	8½	29¾	13½	19½	7	47½	51
W-924	10½	8½	29¾	13½	19½	7	47½	55½
W-933	12	8½	31½	13¾	19½	8	48½	51¼
W-934	12	8½	31½	13¾	19½	8	48½	55¾
W-935	12	8½	31½	13¾	19½	8	48½	60¼
W-943	12	8½	34½	14½	19½	9	51½	52
W-944	12	8½	34½	14½	19½	9	51½	56½
W-945	12	8½	34½	14½	19½	9	51½	60¾
W-953	12	8½	38	15	19½	9	52½	52½
W-954	12	8½	38	15	19½	9	52½	56¾
W-955	12	8½	38	15	19½	9	52½	61¼
W-963	12	8½	42	15½	19½	10	52¼	53¾
W-964	12	8½	42	15½	19½	10	52¼	58¾
W-965	12	8½	42	15½	19½	10	52¼	63¾

For balance of dimensions see steam boilers.

RADIO HEATING BOILERS

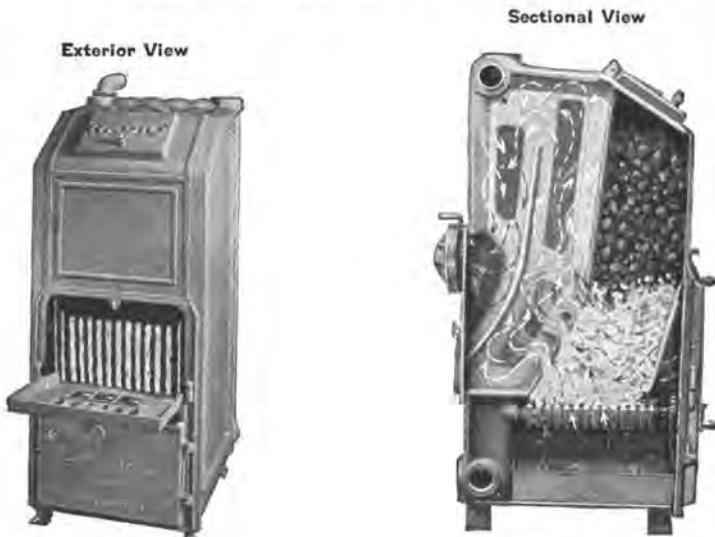


Fig. 952A

The Radio Boiler is comprised of a number of separate water sections connected at the top and bottom, between which are arranged flues. Through these flues are carried the gases and products of combustion.

The heat products pass from the combustion chamber upward to the top of the heater and then downward to the smoke pipe opening.

Above the combustion chamber containing the incandescent fuel and in front of the interior water sections is the magazine or reservoir which holds the fuel. As fuel in the combustion chamber is consumed, fresh fuel feeds downward automatically from the magazine into the combustion chamber, assuring constant heat and steady temperature.

Radio has two grates—a revolving set of grates at the bottom of the combustion chamber which provides for the removal of ashes, and an inclined open fireplace grate in front with means of adjustment. This adjustment feature is designed to permit of varying depths of the combustion chamber, determined by the character of the fuel employed.

Radio burns both hard and soft coal. May be installed as an individual heater in any room having a chimney and may be connected by small piping to hot water radiators of any standard type in adjoining rooms. It evenly heats all rooms with less expense than the heating of one room with a stove. Especially designed for houses without cellars.

Radio is made in five sizes to meet the heating requirements of every class and size of small building. No bothersome trips to cellar, no getting up at night to replenish fuel—large fuel reservoir. Has warm and friendly glow of open fireplace, an exclusive feature. Meets all requirements wherever independent all-on-one-floor heating system is required or preferred. Also adaptable to heating of rooms on floor above.

No.	Width Inches	Fuel Capacity Pounds	Radiating Surface as a Radiator Sq. Ft.	Smoke Pipe Inches	Rating Square Feet	Price Each
104	12	70	50	6	300	84.00
105	15	95	65	6	425	97.50
106	18	120	80	6	550	111.00
107	21	145	95	7	675	124.50
108	24	170	110	7	800	138.00

Flow and return tappings, 2 inches.

CONTINENTAL BOILERS

Water Boiler



Interior View



Fig. 7016A

The Contento is a development of the Continental Square Sectional Boiler. It is a real Boiler in every sense of the word and can be used either on the same floor with the radiators or in the basement.

The fire is drawn up and forward through the side flues and then back through the center flue. The hot gases are thus utilized instead of being wasted up the chimney.

The ample and roomy fire box carries a generous supply of fuel, making frequent attention unnecessary.

The water columns forming the flue ways absorb the heat which in many boilers is wasted up the chimney.

Attractive in appearance, substantial and compact, thoroughly reliable.

No.	Water Rating	Steam Rating	*Radiating Value	Fuel Capacity Pounds	Width at Bottom Inches	Outside Length Inches	Extreme Height Inches	Shipping Weight Pounds	Price, Each	
									Water	Steam
4	325	200	50	85	19½	13½	45	555	85.00	110.00
5	450	275	60	110	19½	17	45	640	100.00	125.00
6	600	350	70	140	19½	20½	45	730	115.00	140.00
7	725	425	80	165	19½	24	45	820	130.00	155.00

*Radiating value of Contento, piping and expansion tank.

Water boilers have two 2-inch flow tappings and one 2-inch return tapping.

Steam boilers have intermediate tapped section with additional 2-inch top outlet.

All boilers are equipped with firing tools and ash pan. Shipped assembled, carefully crated.

Being sectional, the boiler may be increased in size and heating capacity at any time the building is enlarged, by simply adding one or more sections.

INCINERITE GARBAGE BURNERS

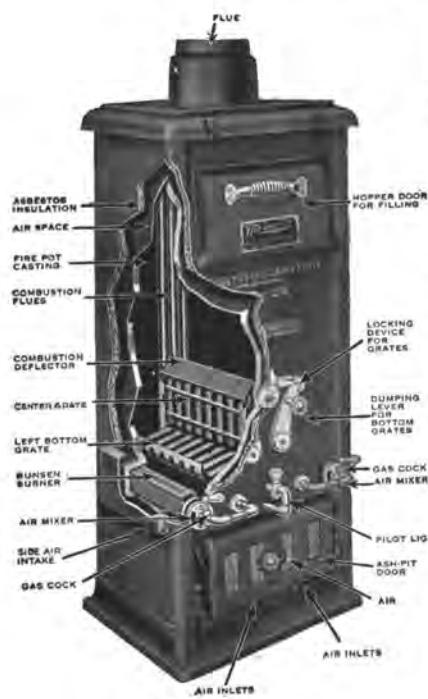


Fig. 41390A

larly adapted for use in small kitchens of apartments and other buildings where floor space is limited. It is built in two models. With removable ash pan or with hopper with slide, which when pulled, dumps the ashes into the bottom of the flue in the basement.

Positively odorless, being air-tight when closed, thus excluding the possibility of burning fumes permeating the room. It destroys by incineration, burning either natural, artificial, or gasoline gas, wet or dry animal or vegetable garbage and refuse, leaving a very slight residue of finely powdered, sterile ash.

The Incinerite is substantially constructed of very heavy, serviceable castings, brass and sheet steel, lined with asbestos.

Bottles, cans and other incombustible objects that find their way into the Incinerite can be easily removed by simply dumping the grates.

The Incinerite is preferably installed in the kitchen near the gas range and convenient to the chimney. It can be connected to the range flue without decreasing or interfering with the efficiency of the flue.

The wall type Incinerite is particu-



Fig. 41390B

No.	Type	Capacity Bushels	Width Inches	Depth Inches	Height Inches	Floor Space Inches	Gas Connection Inches	Smoke Pipe Inches	Shipping Weight Pounds	Price Each
1	Portable	5/8	15	15	30	15x15	3/4	5	325	80.00
2	"	1 1/4	18	18	40	18x18	3/4	6	500	100.00
3	"	2	22	23	52	22x23	3/4	7	900	175.00
4	"	4	26	25	59	26x25	3/4	8	1400	225.00
100	Wall	5/8	14	13	31 1/2	Size of opening to in Wall	3/4	5	325	90.00
101	"	5/8	14	13	33 1/2		3/4	5	325	80.00
102	"	1 1/4	16 1/4	16	37		3/4	6	500	100.00
200	"	1 1/4	16 1/4	16	37		3/4	6	500	115.00
103	"	2	20 1/2	19 1/2	50		3/4	7	880	175.00
300	"	2	20 1/2	19 1/2	50		3/4	7	880	195.00

Nos. 1 and 101, small size for special use only. No. 2 and 102, for ordinary household, medium capacity. No. 3 and 103, for large residences, hospitals, etc. No. 4, for hospitals, hotels, clubs, etc. No. 200, same as No. 102 except the hopper dumps ashes to basement.

No. 100 like No. 101 except hopper dumps ashes to basement.

No. 300 like No. 103 except hopper dumps ashes to basement.

PLAIN CAST IRON RADIATORS

FOR STEAM AND WATER

SINGLE-COLUMN



Fig. 16091A

TWO-COLUMN



Fig. 16091B

THREE-COLUMN



Fig. 16091C

FOUR-COLUMN



Fig. 16091D

Special catalogue and prices sent upon request.

PIERCE CAST IRON WALL RADIATORS**5-FOOT VERTICAL**

Fig. 31559A

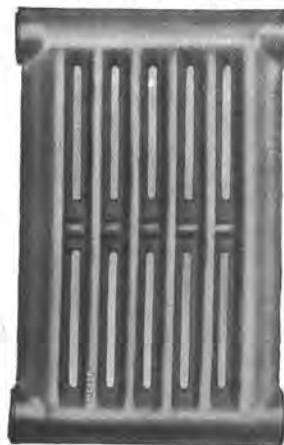
7-FOOT VERTICAL

Fig. 31559C

9-FOOT HORIZONTAL

Fig. 31559B

All size sections are tapped $1\frac{1}{2}$ -inch and can be bushed to smaller sizes when so desired.

These wall radiators are assembled with $1\frac{1}{2}$ -inch R. and L. malleable nipples.

DIRECTIONS FOR ORDERING

1. State number of radiators and number of sections in each.
2. State size of section, whether 5, 7 or 9-foot.
3. State whether vertical or horizontal form is desired.
4. State how many sections long and how many sections high.
5. State whether for steam or water. If for steam, whether for one or two-pipe.

RATING AND MEASUREMENTS

Heating Surface Sq. Ft.	Height Inches	Length Inches	Thickness Inches
5	$13\frac{5}{16}$	$16\frac{5}{8}$	$3\frac{1}{16}$
7	$13\frac{5}{16}$	$21\frac{7}{8}$	$3\frac{1}{16}$
9	$13\frac{5}{16}$	$29\frac{1}{16}$	$3\frac{1}{16}$

No. U-1

WALL AND CEILING RADIATOR BRACKETS

No. U-10



Fig. 31559D

No. U-11



Fig. 31559E

No. U-12



Fig. 31559F



Fig. 31559G

These brackets are made to accommodate all sizes of Pierce Wall and Ceiling Radiators.

CAST IRON RADIATORS**DIRECT RADIATORS, STEAM OR WATER****SQUARE FOOT OF HEATING SURFACE PER SECTION**

Height.....	inches	45	44	38	32	26	22	20	18	17	15	14
Single Column.....				3	2½	2	1½	1½	...	...	1½	...
Two ".....		5	4	3½	2½	2½	2	2	...	...	1½	...
Three ".....		6	5	4½	3¾	3	2	2¼	...	...	...	...
Four ".....		10	8	6½	5	4	3	3	...	...	...	...
Window, Plain.....							5½	...	4¾	...	4	
Price.....	per foot	.74	.74	.70	.76	.84	.90	.96	1.00	1.02	1.06	1.08

CORNER, CURVED, ANGLE AND CIRCULAR RADIATORS**ADD TO PRICES OF DIRECT RADIATORS, EITHER STEAM OR WATER**

CORNER.—7.75 per corner; Repairs, one or more sections of the corner 3.25 per section.
CURVED.—7.75 per Radiator, plus 30 cents per Section; Repairs, one or more sections, 3.25 per section.
CIRCULAR.—6.00 per Radiator, plus 75 cents per Section; Repairs, one or more sections, 2.75 per section.

ANGLE RADIATORS.—One or Two Angles, 7.75 per Radiator; Four Angles, 10.50 per Radiator;
 Repairs, one or more sections of the Angle, 3.25 per section.

Radiator Lugs for Marble Tops, per Radiator..... 1.00

Saddles for Marble Tops, per pair..... 1.00
 No extra charge will be made for radiators furnished without legs.

Radiators with legs measuring 6 inches from center of the supply opening to the floor will be furnished without extra charge.

For Radiators ordered with Legs Higher or Lower than Regular Height, as indicated in Catalogue, there will be added an Extra Charge, per Leg Section 1.06

For Changing the Location or Making an Additional or Special Tapping there will be an Extra Charge per Tapping..... 1.00

For Double Hub Tapping there will be an Extra Charge, per Radiator..... 2.00

A charge of actual cost will be made for crating radiators.

WALL RADIATORS—FOR STEAM OR WATER

Size.....		square feet	5	7	9
Price.....	per square foot		.90	.76	.76

PANTRY RADIATORS—FOR STEAM OR WATER

Made up from seven-foot sections only.

No.....	1	2	3	4	5
Height.....	inches	7	17	27	37
Heating Surface.....	square feet	7	15	23	31
Price, Assembled.....	each	16.00	30.00	44.00	58.00

DINING ROOM RADIATORS

Made in three-column only, 3½ inches high.

No.....	1	2	3	4	5
Length.....	inches	32½	37½	42½	47½
Heating Surface.....		43	53	63	73
Price, Steam.....	each	92.00	100.00	108.00	116.00
" Water.....	"	104.00	114.00	123.00	132.00

No.....	6	7	8	9	10
Length.....	inches	57½	62½	67½	72½
Heating Surface.....		93	103	113	123
Price, Steam.....	each	132.00	140.00	148.00	156.00
" Water.....	"	150.00	159.00	168.00	180.00

PIN INDIRECT RADIATORS—FOR STEAM AND WATER

Price, 10 Square Feet per Section, with Push Nipple Joints.....	per section	5.00
" 15 "	" "	7.50
" 20 "	" "	10.00

Unless ordered shipped knocked down, indirect radiators with push nipple joints will always be assembled before shipment, for which an additional charge of 1 cent net per foot will be made.

All prices subject to change without notice.

BUFFALO GAS FUEL STEAM RADIATORS



Fig. 6904A

Buffalo Gas Fuel Steam Radiators furnish a large volume of steam heat at approximately five pounds pressure and operate on natural or artificial gas without change of burner.

These radiators consist of a series of standard cast iron radiator sections (H. W. type) of the same appearance as steam or hot water radiators but having combustion chamber at the bottom into which is fitted a special ball type gas burner running entire length of radiator.

By means of the automatic regulating valve operation of radiator is entirely automatic once water is supplied through filler cup and burner lighted. An automatic safety pop valve set to operate at 15 pounds is provided for emergency purposes only.

They are particularly suitable for homes, apartments, offices, stores, churches, garages, porches etc., and buildings having no basements. Recommended for permanent and auxiliary heating. Each radiator is an individual heating unit and boiler system in itself. Can be installed in conjunction with any steam heating system. Furnished complete with all trimmings and full operating instructions.

No. Sections	No. Columns	Radiation Feet	Height Inches	Width Inches	Crated Weight Pounds	Price Each
4	3	16	24	10	93	35.00
6	3	24	24	10	140	45.00
8	3	32	24	10	186	54.00
10	3	40	24	10	233	63.00
12	3	48	24	10	280	72.00
14	3	56	24	10	326	81.00
16	3	64	24	10	373	90.00
4	3	24	32	10	115	40.00
6	3	36	32	10	172	54.00
8	3	48	32	10	230	66.00
10	3	60	32	10	287	80.00
12	3	72	32	10	345	94.00
14	3	84	32	10	402	106.00
16	3	96	32	10	460	120.00

Length 2½ inches per section, 6 inches additional for valves.

O-B RADIATOR VALVES AND UNION ELBOWS

RADIATOR VALVES



Fig. 13205A



Fig. 13205B



Fig. 13205C

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Angle Type.....	each	3.70	4.30	5.10	6.40	8.40	13.60
" R. H. Corner Type.....	"	4.75	5.60	7.05	9.25	15.00	
" L. H. " "	"	4.75	5.60	7.05	9.25	15.00	

Gate With Union



Fig. 13205D

Hot Water



Fig. 13205E

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Gate with Union.....	each	3.65	4.25	5.20	6.60	9.00	12.80
" Hot Water.....	"	3.25	3.70	4.50	5.75	7.30	12.00

UNION ELBOWS

Made from the highest grade of steam metal. They are heavy pattern, accurately machined, finely finished and carefully tested.

They make up absolutely tight. Rough body, finished trimmings, nickel-plated all over.

Threaded right-hand on both inlet and outlet.

All threads conform to Briggs' Standard wrought iron pipe dimensions.

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price.....	each	1.75	2.00	2.50	3.30	4.25	7.20

All O-B Radiator Valves are fitted with black enameled wood wheels and as regularly furnished are heavily nickel-plated all over; the body being rough and the trimmings highly polished.

Valves are regularly threaded right-hand on both inlet and outlet.



Fig. 13205F

MARSH RE-ENFORCED PACKLESS RADIATOR VALVES

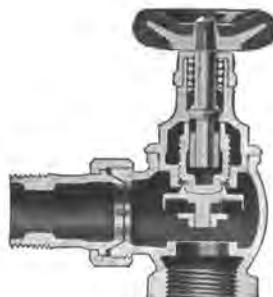


Fig. 14415A



Fig. 14415B

In the Marsh Re-enforced Packless Valves no rubber rings or composition discs are used in effecting the packless feature.

These valves are the only packless valves on the market, of which we have any knowledge, in which the packless feature is practically indestructible, and will withstand high pressure service.

The construction is the same as in the Marsh Re-enforced Packless Modulated Valves, in which the packless feature is formed by a cone of unequal degrees, and re-enforced by a full-sized, amply-packed stuffing box, in which the packing is automatically forced into sealing position by a heavy spring of sufficient length to follow or take up shrink or wear of packing, positively assuring a perfect auxiliary or reserve seal at all times.

This is the only packless valve with an auxiliary protection against leakage from wear or injury to packless feature, so common in the ordinary construction.

These valves are furnished either with the Kantsplit Wood Wheel or lock shield and are furnished rough body, finished trimmings, nickel-plated all over.

PACKLESS ANGLE VALVES WITH UNION

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price.....	.....each	3.70	4.30	5.10	6.40	8.40	13.60

PACKLESS CORNER AND BACK OFFSET VALVES WITH UNION

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price.....	.....each	4.10	4.75	5.60	7.05	9.25	15.00

No. 3 TRITON



Fig. 6917A

An all metal thermostatic valve. The base, shell, float, valve pin and seat are of brass and the diaphragm is of bronze. No gaskets or packing are used. All parts are of metal.

The float contains a volatile liquid which vaporizes at about 190 degrees Fahrenheit, thereby closing the vent and preventing the escape of steam.

Price.....each 1.75

No. 1 THUCO

The principle of construction of the Thuco is such that all the air is expelled from the coil or radiator. In the shell of the valve is a sealed metal float, flexible top and bottom. This float is partially filled, under vacuum, with a sensitive fluid which vaporizes at 151 degrees Fahrenheit, expanding the corrugations top and bottom, and closing the valve against the loss of steam.

Price, No. 1, or $\frac{1}{8}$ -inch.....each 1.50



Fig. 6917B

COMPRESSION VALVES

No. 1 WOOD WHEEL



Fig. 6917C

Price, Nickel-plated.....each .70

No. 3 WITH KEY



Fig. 6917D

Price, Nickel-plated.....each .70
" Key only, Nickel-plated " .10

RADIATOR AIR VALVES

WARCO NON-ADJUSTABLE AUTOMATIC AIR VALVES



Fig. 6917E

A new non-adjustable automatic air valve.

Made mechanically perfect and all metal construction of the best materials.

Non-adjustable and operates under all pressures.

Does not leak.
Prevents loss of steam.

Permits steam to heat every part of the radiator.

Saves coal, heat, worry and annoyance and keeps radiator hot all over.

Price.....each 1.25

No. 4 THUCO

This valve is designed for one pipe gravity steam systems. It distinguishes between steam, air and water, handling each in the proper manner. Normally the vent port is wide open for the release of air but with steam contact or presence of water in the valve the vent port is instantly closed.



Fig. 6917F

Price, with $\frac{1}{8}$ -inch Pipe Connection.....each 1.00

COMPOSITION VALVE HANDLES



Fig. 6917G

Size Inches	PRICE, EACH	
	Wood Wheels only	Screws Only
$\frac{1}{2}$	.20	.03
$\frac{3}{4}$	.20	.03
1	.20	.03
$1\frac{1}{4}$	.20	.03
$1\frac{1}{2}$	.20	.03
2	.20	.03

HOFFMAN RADIATOR AIR VALVES



Fig. 31338A



Fig. 31338B

No. 1 Siphon air valve distinguishes between steam or water and air, closing tight against steam or water but freely vents all air from the radiator.

No. 2 Siphon air and vacuum valve functions in every way the same as valve No. 1, but after the air is once out it keeps it out.

No.	1	2
Price,	each 1.90	4.50

Nos. 5 AND 6



Fig. 31338C

No. 6



Fig. 31338D

No. 5 quick vent float air valve, for quick vent service where it is desired to control or prevent the emission of either steam or water through the valve. Vent port $\frac{1}{8}$ inch. Threaded $\frac{3}{8}$ inch

No. 6 quick vent float air and vacuum valve, for quick vent service where it is desired to control or prevent the emission of either steam or water through the valve, and also to prevent the return of air to the stack or line to which the valve is connected. Vent port $\frac{1}{8}$ inch. Threaded $\frac{3}{8}$ inch.

No.	*5	*6
Price,	each 8.00	12.00

*Vent port can be made $\frac{1}{8}$ inch when pressure is not over three pounds.

Nos. 1 AND 2

No. 2

Nos. 3 AND 4

No. 4



Fig. 31338E



Fig. 31338F

No. 3 air line valve, for drip line or vacuum air line service. Male thread $\frac{1}{8}$ inch. Female thread $\frac{1}{4}$ inch.

No. 4 Junior Quick Vent Air Valve, designed for quick vent service where water is not a factor. Vent port is $\frac{1}{8}$ inch in diameter; valve closes tight against steam emission, but does not close against water. Threaded $\frac{3}{4}$ or $\frac{1}{4}$ inch.

No.	3	4
Price,	each 2.50	2.80

No. 8

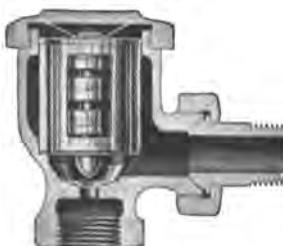


Fig. 31338G

No. 8 return line thermostatic valve, $\frac{1}{2}$ -inch angle pattern. Vent port $\frac{1}{4}$ -inch. Positively distinguishes between steam, water and air, freely passing the water and air but closing tight against steam.

This valve is also made in right and left hand corner and straightway.

No. 9 return line valve $\frac{3}{4}$ -inch angle. Vent port $\frac{3}{8}$ inch.

No.	8	*8	9
Price,	each 6.00	6.00	8.00

*Right and left hand corner and straightway.

The expandable medium of these valves is a volatile or heat sensitive fluid which is contained in a sealed chamber having one or more flexible diaphragms of monel metal. They are made entirely of metal and are absolutely non-adjustable.

MINNEAPOLIS HEAT REGULATORS

No. 47

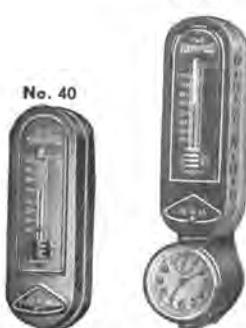


Fig. 9261A

No. 55



Fig. 9261B

Gravity Motor

No. 70



Fig. 9261C



Fig. 9261D

Spring Motor



Fig. 9261E

steel cover, No. 22 gauge, finished in black enamel, baked. There is an index finger with scale which travels as the motor is wound and unwound, a glance at the motor showing at all times the condition in reference to winding. The cover is dustproof, cotton sleeving being used at the shaft. The motor is also provided with basement switch by means of which, the motor can be operated in the basement at will. Easily wound by means of crank key.

The gravity motor is designed to be fastened to the ceiling of the basement. It is enclosed in a pressed steel case, finished in baked black enamel. The power is furnished by an iron weight, which is of ample size to lift all dampers on the modern types of furnaces, and no special expensive dampers are necessary.

All models furnished, if desired, with non-wind electric motors. Three types: D. C., 6-volt, operating on 4 dry cells only; A. C., 110-volt 60 cycle, alternating current; 110 D. C., 110-volt, D. C. Motor and 2-dry-cell thermostat circuit.

PRICE, COMPLETE REGULATOR, EACH—

Regulator No.	Time Attachment	Gravity	Spring Motor	A. C. Motor	D.C. Motor	D.C. Motor	110
40	Plain Thermostat, no Clock...	37.00	45.00	70.00	60.00	70.00	
47	One-day Thermostat.....	44.00	52.00	77.00	67.00	77.00	
55	Eight-day Duplex Thermostat	56.00	64.00	89.00	79.00	89.00	
55-B	DeLuxe Chelsea Clock.....	80.00	88.00	113.00	103.00	113.00	
65	Hot Water Tank or Boiler....	36.00	44.00	69.00	59.00	69.00	
70	Pressure Regulator.....	41.00	49.00	74.00	64.00	74.00	
65	Thermostat only.....	20.00	.....	.....	.....	.....
70	Pressurestat only	25.00	.....	.....	.....	.....

HONEYWELL WATER REGULATORS

No. 30



Fig. 3676A

The No. 30 Honeywell Water Regulator is designed for hot water boilers or for storage tank control and will control the drafts so as to maintain a constant water temperature at any degree between 100 degrees and 220 degrees Fahrenheit.

The regulator is to be connected directly into top of heater or to flow pipe in such position that the circulating water will flow around the bulb of the regulator. When so connected, it will open and close the dampers with a water temperature change of only a few degrees.

The Honeywell Regulator is made entirely of metal. The bulb surrounds a seamless metallic bellows and contains a volatile liquid. As the water temperature in the system increases, the liquid vaporizes and the gas pressure thereby generated compresses the bellows and forces upward the thrust rod or stem which operates the lever and closes the drafts. As the water cools the gas pressure is relieved and the counterweight opens the draft.

There are no perishable parts to wear out. The action is sensitive and accurate and adjustment for temperature is easily and quickly obtained by changing the position of weights on the lever.

WHAT THE HONEYWELL REGULATOR WILL DO

It will open and close drafts, according to the desired degree of water temperature.

It will prevent over-heating of the water in the system.

It will save fuel.

It will save trips to the cellar.

It will maintain steady, even temperature.

It keeps the fire from burning too fast.

It keeps the fire from going out.

SPECIFICATIONS

Trimmings consist of one 37-inch lever, two 4-pound weights, 12 feet of chain, 2 pulleys and 4 S hooks.

Length of Bulb.....	.inches	2 $\frac{1}{2}$
Standard Pipe Thread Connection.....	"	2
Shipping Weight.....	pounds	15
Price.....	each	18.00

D AND T SELF-REGULATING HOT WATER HEATING SYSTEM

ORIGINAL TANK-IN-BASEMENT SYSTEM

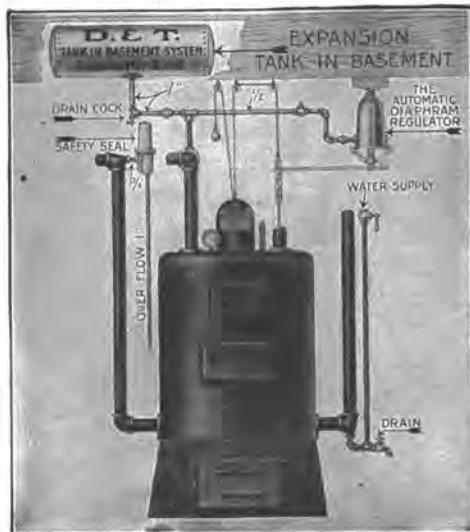


Fig. 14411A

The D. & T. tank-in-basement system can be used on all sized installations of hot water heating from a one-story bungalow with two hundred square feet of radiation, to a four-story building with twenty-five thousand square feet of radiation.

The features of the D. & T. system are placing the expansion tank in the basement where it will not freeze, eliminating dangerous overflows, or standpipes, furnishing automatic damper regulation, from one hundred degrees to two hundred forty degrees governed by the expansion and contraction of the water in the entire heating system.

The equipment consists of one pressure controller, one damper regulator, one expansion tank, one special pressure gauge, adjustment plate, chains and pulleys.

Price, No. 2 Equipment for 1 or 2-story Buildings up to 1400 Square Feet Radiation.....	60.00
" No. 3 Equipment for 3-story Buildings up to 1400 Square Feet Radiation.....	60.00
" " 4 " " 4 " " 1400 " " "	60.00

EXTRA TANK CAPACITY

For installations containing more radiation than listed above, an extra charge will be made for the additional expansion tank capacity.

When ordering, state number of square feet of radiation and stories of building.

HONEYWELL HEAT GENERATORS

POSITION OF MERCURY
AND WATER WHEN GENERATOR
IS PRODUCING NO PRESSURE



Fig. 3962A

POSITION AND ACTION OF MERCURY
AND WATER WHEN GENERATOR
IS IN COMPLETE OPERATION
PRODUCING 10 POUNDS PRESSURE

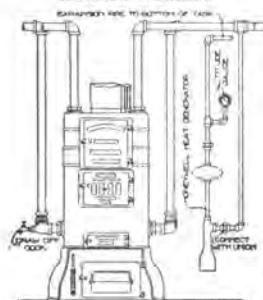


Fig. 3962B

These generators are designed to meet the demand for a device to quicken the circulation in hot water heating jobs.

When connected to the expansion pipe of an ordinary gravity plant, this generator seals the circuit and permits the generation of a slight pressure up to 10 pounds, at which point it relieves itself through the operation of a mercury seal, eliminating any element of danger.

**SHOWING GENERATOR
ATTACHED TO HOT
WATER BOILER**



The pressure created by this generator will remedy any unsatisfactory job of hot water heating where the radiation is insufficient, the piping too small for gravity, the circulation sluggish, causing large fuel consumption, or where the water boils easily from quick firing, providing, of course, the boiler is large enough to supply the heat. It greatly improves jobs which contain long horizontal mains, or where the radiation is all on the first floor.

In new work it permits a reduction in radiation, and smaller piping as advocated in the Honeywell system, the system of low cost and high efficiency. It is positive and automatic, is sold under the strongest guarantee, will last a lifetime, and cannot get out of order.

Number.....	1	2	3	4
For Radiation..... square feet	1200	2500	3500	10000
Size of Inlet..... inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{4}$
" " Outlet..... "	1	1	$1\frac{1}{4}$	$1\frac{1}{4}$
Price..... each	25.00	35.00	50.00	65.00

EXCELSO WATER HEATERS AND ROTARY SAWS

WATER HEATERS



Fig. 595A

The Excelso Water Heater is very simple and compact in construction. It consists of a cast iron shell open at one end. This open end is covered with a plate on which is cast complete instructions for taking the heater apart. There are tapped openings for the boiler connections and machined openings for the coil.

Within this shell there is a heavy copper coil heating element, this being the most efficient form of heating surface. This coil is installed in an unique way, by means of the Excelso Ground Joint Connections, without packing. The heater is constructed so simply that it can be entirely taken apart or put together in a few minutes time. All parts are interchangeable.

When used with a steam or vapor boiler both shell openings are connected below the water line. This allows the boiling water (not steam) from the boiler to flow through the shell, heating the domestic water circulating through the copper coil.

Can be easily connected to any heating boiler in any new or old installation.

Number.....	11	12	13	14	15	16	17	18
Length.....inches	10½	14	11½	15	19½	15	19	23¼
Diameter....."	5	5	6½	6½	6½	9	9	9
Shell Openings....."	1	1	1½	1½	1½	2	2	2
Coil....."	¾	¾	1	1	1	1½	1½	1½
Capacity, Below Water Line of Steam or Vapor Heating Boilers.....gallons	30	45	60	90	120	200	300	400
Capacity, with Live Steam....."	50	75	100	150	200	300	450	600
Price.....each	30.00	40.00	50.00	60.00	70.00	150.00	180.00	210.00

ROTARY HACK SAW TOOLS



Fig. 595B

Rapidly and easily cuts holes through metal to fit pipe size taps. One tool cuts holes for either, 1, 1½ and 2-inch pipe taps by inserting proper size blades. Cuts labor cost 75 per cent for making holes through metal or other materials.

Its operation is simple, being used in an ordinary hand brace. Cuts perfectly round holes through boiler sections, tanks, headers, soil pipe, etc.

Price, Including Six Blades (Two of Each Size)each 7.50



Fig. 7557A

WATER HEATERS**DOMESTIC TACO WATER HEATERS****For Use with Steam, Vapor or Vacuum Heating Boilers**

Suitable threaded openings are provided for all pipe connections. To be installed below the water line. These heaters are built with the coil on the cover and tested to 1200 pounds pressure. Coil and cover can be removed for cleaning without breaking the coil connection.

No.	Size Range Boiler Gals.	Water Con. to Range Boiler In.	Heating Boiler Connections In.	Ship. Wt. Lbs.	Price Each
30	Up to 30	3/4	1	11	\$15.00
1	" " 40	3/4	1	14	20.00
2	" " 80	1	1 1/4	24	30.00
3	" " 160	1 1/4	2	52	50.00

FLO-LINE TACO WATER HEATERS**For Use with Steam or Hot Water Heating Boilers**

The water supply is heated by its circulation through the copper coil, which is in the flow-line from the steam or water heating boiler. To be piped to range boiler installed above Taco Heater.

No.	RANGE CAPACITY, GALS.	Steam Plant	Hot Water Plant	Water Con. to Coil	Side Openings	TOP AND BOT.—		Ship. Wt. Lbs.	Price Each
						Con. to Tapped	FLANGE TAPPINGS IN.		
01	60	20	3/4	1	3	1	-2 or 4	25	25.00
02	120	40	1	1	4	1	-2 1/2 " 5	40	35.00
03	240	80	1 1/4	1 1/4	5	1 1/4	-3 " 6	75	55.00



Fig. 7557B

Recommended for use in connection with hot water heating plants only where provision is made for the use of gas or coal heater on wash day and at such other times when extremely hot water is required. Domestic water will be heated to within 20 degrees of heating plant temperature.

APARTMENT TACO WATER HEATERS

Especially constructed for use with steam or vapor-heating plants in apartments and other large buildings. It is connected below the water line at the side of the heating boiler, for connection to tanks 320 to 960-gallon capacity.

Capacity as stated is an average for a 4 or 5-room apartment with one bath and kitchen with usual fixtures, occupied by one family.



Fig. 7557C

No.	No. of Families	Tank Size	Price Each
4	12	320	100.00
5	25	640	200.00
6	40	960	300.00

With Tappings

With Studs

UNIVERSAL TACO WATER HEATERS

Recommended for use in the firepot of hot-water heating boilers. The No. 3-30 and 3-60 for use with square boilers; the others for round boilers.

Size In.	Capacity Gals.	Made of	Ship. Wt. Lbs.	Price Each
9-30; 3-30	30	Malleable Iron	10	8.00
9-60; 3-60	60	" "	17	14.00
6-9-30	30	" "	10	8.00
6-9-60	60	" "	17	14.00
6-9-30	30	Brass	10	20.00
6-9-60	60	"	17	35.00



Fig. 7557D



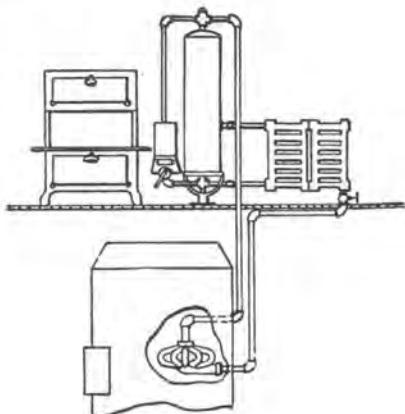
Fig. 7557E

PHÆTON HEATERS

FOR HEATING RANGE BOILER FROM FURNACE



Fig. 14179A



These auxiliary heating sections are to be placed in the furnace and are used to heat water in the range boiler. Radiators can be attached also.

The peculiar shape of this heater makes circulation very rapid. A number of careful tests have proven that 80 per cent of the heat reappears in the water. The metal is thin and the heat penetrates quickly, making the water very hot.

Never bury the heater in the fire; place the bottom of the heater about on a level with the fire door and well back toward the flue pipe. It will then utilize the hot gases that ordinarily are wasted.

Diameter.....inches	5	6	8	12	14	16	20
Height....."	3	3	4½	6	7¼	7¾	8
Tapping....."	1	1	1½	2	2½	3	3½
Range Boiler Capacities.....gal.	30	30	65	109	242	270	444
Radiator Capacities sq. ft.	30	35	75	125	200	300	500
Shipping Weight.....lbs.	5	5	12	30	61	75	131
Price.....each	3.25	3.60	7.00	9.60	16.00	18.00	30.00

HEATING ACCESSORIES

R. AND F. HOT WATER GENERATORS



Fig. 6905A

The top tapping must be used for the hot water outlet and the coldwater inlet may be connected to any of the others that is most convenient.

Made in cast iron.

Long Pattern



Fig. 6905B

CENTERS

- No. 1— $2\frac{1}{2}$, 5, $7\frac{1}{2}$, 10.
- " 2— $2\frac{1}{2}$, $5\frac{3}{4}$, 9.
- " 3— $2\frac{1}{2}$, $5\frac{3}{4}$, 9.
- " 4— $2\frac{1}{2}$, $5\frac{3}{4}$, 9.

No.	Length Inches	Drain Outlet Inches	Price Black Each
1	15	$\frac{3}{8}$	7.00
2	15	$\frac{3}{8}$	7.00
3	15	1	7.00
4	11	1	7.00

RADIATOR PEDESTALS



Fig. 6905C

To Raise Rad. In.	Price Each	To Raise Rad. In.	Price Each
$\frac{1}{2}$	.20	3	.48
1	.20	$3\frac{1}{2}$	.48
$1\frac{1}{2}$	.28	4	.60
2	.40	$4\frac{1}{2}$	.62
$2\frac{1}{2}$	.40	$5, 5\frac{1}{2}, 6$	.64

RADIATOR BUSHINGS



Fig. 6905D

Size Inches	Price Each	Size Inches	Price Each
$1\frac{1}{2} \times \frac{1}{2}$	$2 \times \frac{3}{4}$	....
$1\frac{1}{2} \times \frac{3}{4}$	2×1	....
$1\frac{1}{2} \times 1$	$2 \times 1\frac{1}{4}$	....
$1\frac{1}{2} \times 1\frac{1}{4}$	$2 \times 1\frac{1}{2}$	....
$2 \times \frac{1}{2}$

Sizes $1\frac{1}{2} \times \frac{1}{2}$ to $1\frac{1}{2} \times 1\frac{1}{4}$ also furnished with left hand threads.

ECCENTRIC RADIATOR BUSHINGS



Fig. 6905E

Size Inches	Price Each	Size Inches	Price Each
$1\frac{1}{2} \times 1\frac{1}{2}$	$2 \times \frac{3}{4}$	....
$1\frac{1}{2} \times 3\frac{3}{4}$	2×1	....
$2 \times 1\frac{1}{2}$

Sizes $1\frac{1}{2} \times 1\frac{1}{2}$ and $1\frac{1}{2} \times 3\frac{3}{4}$ also furnished with left hand threads.

ADJUSTABLE FEET



Fig. 6905F

Made of cast iron to fit any radiator foot and can be adjusted in height by turning top, which screws into bottom part.

Number.....	1	2	3
Height Closed, inches	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{5}{8}$
" Opened "	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{4}$
Price.....each	.20	.25	.30

EXPANSION TANKS, THERMOMETERS, ETC.

EXPANSION TANKS

ROUND
GALVANIZED

Fig. 6408A

WOOD, AUTOMATIC

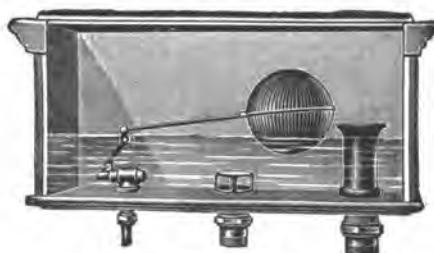


Fig. 6408B

ROUND GALVANIZED EXPANSION TANKS

Approx. Capacity Gallons	Size Inches	Square Feet of Radiation	Price Each without Trimming	Approx. Capacity Gallons	Size Inches	Square Feet of Radiation	Price Each without Trimming
10	12x20	300	8.00	26	16x30	950	14.00
15	12x30	500	9.00	32	16x36	1300	15.00
20	14x30	700	12.50	42	16x48	2000	16.50

AUTOMATIC EXPANSION TANKS

Price, Round Corners, Varnished, Golden Oak, with Couplings. each 20.00

HOT WATER AND STEAM THERMOMETERS
STRAIGHTIDEAL EXPANSION
TANK BRACKET

Fig. 6408C



Fig. 6408D



Fig. 6408E

IDEAL EXPANSION TANK BRACKETS

Price, Taking Tanks 10 to 16 Inches Diameter..... 1.75

HOT WATER AND STEAM THERMOMETERS

Price, Straight Stem, Hot Water.....	each	2.00
" Angle, Hot Water.....	"	3.00
" Straight Stem, Steam.....	"	8.00
" Angle, Steam.....	"	13.00

TRANE VAPOR HEATING SYSTEM

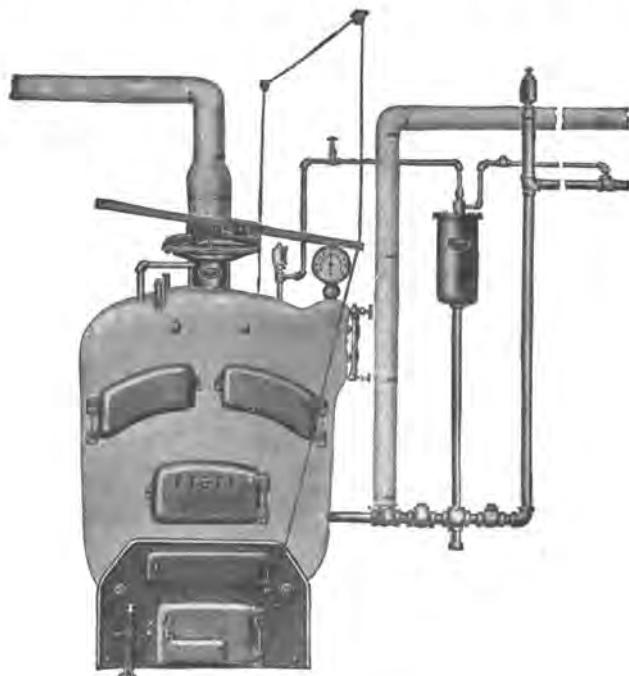


Fig. 34526B

The Trane Vapor Heating System consists of patented heating appliances installed in connection with any make of steam boiler and radiators, according to exact plans prepared for any particular building.

The system operates by steam automatically controlled to remain at a few ounces above or below atmosphere. It is the simplest vapor heating system on the market—is quick to heat up—has a direct return trap or receiver which makes it absolutely safe—a damper regulator sensitive to one ounce pressure change if required—high quality graduated valves—dependable and indestructible radiator traps or return fittings.



Fig. 34526B

SIMPLICITY AND EFFECTIVENESS

The method which produces the desired results in the most simple and direct manner is always the best. The Trane Vapor Heating System requires no complicated apparatus to operate under so-called vacuum or pressure. It goes directly after results and is simple in construction and operation. It is easy to operate, easily controlled, and readily adapted to the exacting demands of the most severe or changing weather conditions. Therefore the Trane system is most in evidence for what it does and not for what is required to be done for it. It makes possible to enjoy the least sense of apparatus and the greatest sense of complete heating satisfaction.

TRANE VAPOR HEATING SYSTEM

VALVES, RECEIVERS AND RETURN FITTINGS



Fig. 34743A

VAPOR VALVES

The Trane Graduated Vapor Valve has a Jenkins Disc which closes off tight. It is a sleeve valve possessing the advantages of accurate graduation of the vapor supply to the radiators, thus making temperature regulation in every room easy. The handle can be turned to admit as much or little vapor to the radiator as is desired. A three-quarter turn completely opens or closes the valve. It is made in sizes, $\frac{1}{2}$, $\frac{3}{4}$, 1 and $1\frac{1}{4}$ inches.

RETURN FITTINGS

The Trane Return Fitting provides two separate openings for the escape of air and water from the return of the radiator. This provision for the quick escape of air and water of condensation is one of the reasons why Trane Systems heat up so quickly, and it is responsible for the high factor of safety.

Return fittings are used with all radiators on installations with less than 400 square feet of radiation. They are made in three sizes. $\frac{1}{2}$ -inch for 20 square feet and under, $\frac{3}{4}$ -inch, No. 1, for 21 to 64 square feet, and $\frac{3}{4}$ -inch, No. 2, for 65 square feet and over.



Fig. 34743B



Fig. 34743C

RECEIVERS

The Receiver is used with less than 400 feet radiation in connection with the return fitting. It is equipped with a float valve operating only when the boiler pressure is higher than necessary. The water rises, closing the valve connected to the float and the system is sealed so that no water can escape. The pressure in the return pipe then increases to nearly equal pressure in the boiler, allowing the water to return by gravity. This operation is intermittent, allowing air to pass from the system even under high pressure, insuring safety no matter how faultily the boiler is handled.

QUICK VENT VALVES

The Quick Vent Valve is placed at the top of the receiver, allowing the air to escape freely from the system to the atmosphere. When steam reaches the thermetal member it closes the port, preventing the escape of steam into the basement. The aluminum plate at the top of the valve allows the air to pass from the system but prevents its return.



Fig. 34743D

TRANE VAPOR HEATING SYSTEM

THERMETAL RADIATOR TRAPS



Fig. 34525A

The chief distinctive feature of the Trane Thermetal Radiator Trap is that it has no diaphragm. In other respects there is no radical departure in its construction from the best principles of radiator trap construction. It possesses every advantage, and eliminates the weaknesses of diaphragm traps. It is more sensitive and more positive in action, and will operate under a greater pressure range than a diaphragm trap.

The thermostatic member in the Trane Trap consists of two perfect circles of thermostatic metal, joined together to form a figure 8, laid on its side with the plunger attached to one circle below, and the stem which screws into the trap bonnet attached

to the other circle at the top. The metal in these two circles bends or expands outwardly with heat, the deflection varying directly with the degrees of temperature change while the force exerted varies as the square of the degrees of temperature change. The force exerted is positive and uniform throughout the length of the metal. There is no liquid to leak out or to give out, and there is absolutely nothing that can happen to it to render the force inoperative. The metal is non-corrosive, and cannot be permanently distorted or set or otherwise injured by any pressure within the trap.

When steam reaches the trap the metal is expanded to form circles of larger diameter and the action of this expansion in each circle is so balanced by the other circle that both the force and the motion are not only multiplied but are communicated to the plunger in one direction only, that is straight down onto the seat of the trap. When air or water of condensation collects in the trap the temperature difference reacts to contract the circles and to exert a force to lift the plunger off the seat and permit the escape of air or water from the trap until steam again reaches it.

TRANE FLOAT VENT VALVES

Wherever direct return traps are used, Trane Systems are vented through Float Vent Valves installed at the boiler or at other points in the building where the air and water returns drop to a wet return.

The Float Vent Valves are designed to allow the free escape of the air from the system and at the same time prevent water and steam from escaping through the same opening. They are provided with a vacuum check at the top which effectively prevents the air from re-entering the system. These traps are made in $\frac{3}{4}$ inch size only.



Fig. 34525B

TRANE VAPOR HEATING SYSTEM

RETURN TRAPS AND REGULATORS

DIRECT RETURN TRAP



Fig. 34524A

The Trane Direct Return Trap is primarily a safety device. Wherever it is installed there can be no loss of water from the boiler. While the Trane System is strictly a vapor system, operating ordinarily at a few ounces pressure, it is possible under unfavorable conditions like careless firing or faulty handling to have a pressure much in excess of that necessary for heating. With a Trane Direct Return Trap nothing of a serious kind can occur even under adverse conditions. Whenever there is a tendency for the water to remain in the return piping instead of flowing back to the boiler, the trap begins to operate and pumps the water back so that it cannot remain in the pipes to injure the boiler.

As water accumulates in the trap it raises the float until it throws the mechanism, closing the air vent and opening the live steam valve, which equalizes the pressure and allows the water to return to the boiler. The lowering of the float closes the steam valve and opens the air vent, thereby permitting the water of condensation to flow into the trap. The air valve on the top is connected with the return piping so that there is neither escape of steam or noise.

The Trane Regulator is connected into the steam dome or into the supply pipe on top of the boiler and chains run from the end of the lever arm to the draft door and to the check draft in the smoke pipe. The pressure in the boiler operates on the body of water in the bottom of the regulator, which in turn forces up the large diaphragm connected to the lever arm, closing the drafts as the pressure increases and opening them again as the boiler pressure goes down. A weight is provided on the lever arm which can be set to maintain any desired pressure in the boiler.



Fig. 34524B

HOW TO ORDER TRANE SPECIALTIES

For convenience the boiler specialties are grouped so that it is only necessary to order set No. 1-A, 1-B, 2, or 3. Nos. 1-A and 1-B are for use on installations with 400 square feet of radiation or less. No. 1-A is recommended wherever conditions permit as this set includes the No. 2 Regulator which is larger and consequently more sensitive and powerful than the No. 1-B. Set No. 2 is used on installations with from 400 to 2000 square feet of radiation. Set No. 3 is used on installations with a radiation of 2000 square feet and over.

In addition to the boiler specialties, where the radiation is less than 400 square feet, a graduated valve and return fitting are required for each radiator. *Installations with radiation of more than 400 square feet require a graduated valve and a thermetal trap for each radiator.*

Where radiator traps are used in place of return fittings a direct return trap must be used, because with traps a difference in pressure between supply and return is created when radiators are hot, requiring a positive device to force the water into the boiler.

TRANE VAPOR HEATING SYSTEM

PLAN OF INSTALLATION

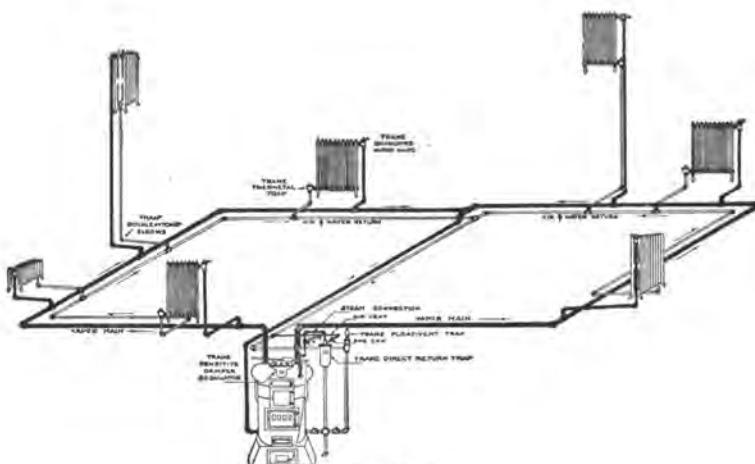


Fig. 34725A

The above illustration shows graphically the main features in both the design and operation of a Trane System. Particular attention is called to the simplicity and absence of complicated apparatus. The vapor main is divided into two perfectly balanced circuits running each way from the boiler and connected together above the water line. Also notice that the air and water return, as shown by the light piping, runs in the same direction and is practically the same length as the supply main. This feature is carefully worked out in Trane Systems and in operation has the effect of placing each of the radiators an equal distance from the boiler, resulting in quick even heat, warming all parts of the building uniformly and at practically the same time.

When the system is in operation, the vapor entering the radiator displaces the air which is heavier than the vapor. The air, together with the vapor of condensation, flows quickly and naturally by gravity through the radiator traps and return piping to the return trap in the basement, where the air is exhausted from the system and the condensation returned to the boiler. The operation of the Trane Direct Return Trap in this connection and also the operation of the Trane Damper Regulator, are described on another page.

TRANE VAPOR HEATING SYSTEM

CONDENSATION PUMPS

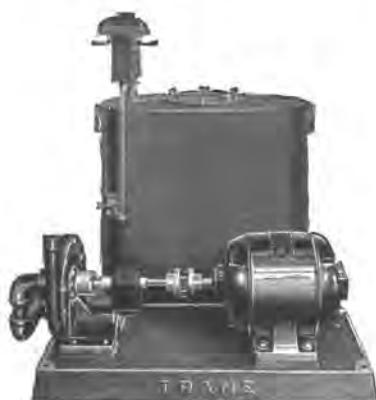


Fig. 34726A

The Trane Condensation Pump consists of the Trane Pump with motor, receiving tank and automatic float switch direct connected and mounted on base, as shown in illustration.

The outfit is extremely simple and absolutely dependable in operation, and on the basis of the published capacities there is an ample factor of safety in the pump and motor sizes provided.

The bases are made of the best grade grey cast iron, substantially ribbed and re-enforced.

The receiving tanks are made of cast iron in the small sizes, and the larger sizes of heavy welded sheet steel. All tanks allow for a long powerful float arm connected by levers to the automatic switch on the side or end of tank.

The automatic switch is the two pole type, without question the most simple and dependable float switch ever designed; mounted on slate and completely covered by approved metal mounting box securely fastened to tank.

A flexible coupling is used between the motor and the pump, relieving both pump and motor bearings from wear.

In buildings of any class where condensation is to be returned to the boiler from radiation below or close to the water line, or where a reducing valve is used to supply the radiation from boilers operated under pressure, an automatic electrically driven condensation pump will more than pay for itself in savings in installation costs, in fuel savings, and in the increased efficiency and better operation of the heating plant.

It is preferred to make quotations on units individually. Due consideration can then be given to all special conditions which are involved in each separate project. Information and prices will be furnished upon request.

TRANE AIR LINE AND RETURN LINE VACUUM PUMPS

Direct Connected—Front View

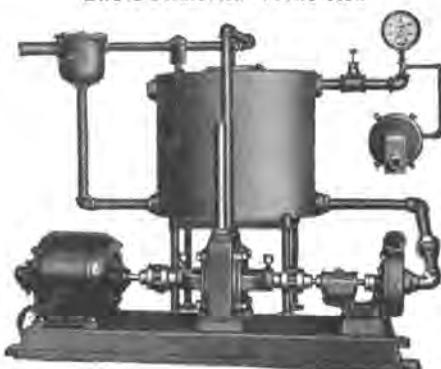


Fig. 6464A

The Trane Return Line Vacuum Pump, not illustrated, consists of an air pump and a water pump direct connected with one motor. This outfit is furnished complete with double automatic control, both float and vacuum. It is especially suitable for maintaining a vacuum on return lines of the heating system and returning the condensation directly to the boiler, and also is in demand for draining kitchen and laundry equipment, dry kilns, paper mills roller drying apparatus and removing the condensate under vacuum from all types of steam using equipment.

This unit also can be furnished in the two unit return line style, that is, the air pump is direct connected with one motor and the water pump direct connected with another motor. This arrangement has several advantages over the single return line pump, in that each of the units are individually controlled, giving a saving in current because each pump only operates when there is an actual need for it. It will be found that the air pump will operate about three times as frequently as the water pump. It also provides for a very flexible arrangement to vary the capacity of the individual units for the particular installations.

An air line pump also can be furnished, consisting of the air pump direct connected with a motor of proper horsepower. This air line pump is furnished with the receiving tank, automatic control and vacuum breakers.

Special literature giving detailed descriptive matter regarding these pumps will gladly be furnished. This literature also gives standard capacities with detailed specifications on motor sizes, etc.

THUCO PIPELESS FURNACES



Fig. 7066A

The Thuco Recirculating System will not heat up the cellar as it is enclosed in a heavy casing composed of galvanized steel, lined with asbestos and tin. The heat passes straight up into the house so easily and quickly, without loss or friction, that vegetables will keep within a short distance of the furnace.

A good circulation is absolutely necessary to evenly and thoroughly heat a dwelling. If the cold air in passing down the cold air returns should at any point come in contact with the warm air pipe, or the warm air inside the casing, it would become heated and retard the circulation. Arrangement is therefore made for an air space of about one inch between the hot air pipe and the cold air returns along the entire distance from the register to the cold air shoes, which prevents the cold air from becoming heated as it passes down and guarantees perfect circulation.

Does not heat the air to a high temperature thus burning out the oxygen which is so necessary to health, but it warms the home by delivering into it large quantities of moderately warmed air which contain all the natural constituents

The Thuco Recirculating System solves many of the most expensive and difficult heating problems. Simple in construction it is efficient and economical in operation.

A single large pipe from the top of the furnace carries a large volume of nicely warmed air into the house quickly and with absolutely no loss. Two cold air returns, one on either side of the furnace, draw off the cold air from the floor, producing a constant, gentle circulation throughout the house.

This circulation of the air carries the heat through the different rooms and results in a cozy, healthful atmosphere in all parts of the home.

It is easy and inexpensive to install. The casing top is made with an adjustable joint which allows it to be installed in cellars of different heights without cutting. Everything for a complete installation is furnished so perfectly fitted that a handy man can set it up with a hammer and a screwdriver.

The register is rectangular in shape, only 20 inches wide and when set along the wall, does not extend out into the middle of the room as most one-pipe registers do. In fact, the floor space it takes up is scarcely noticeable.

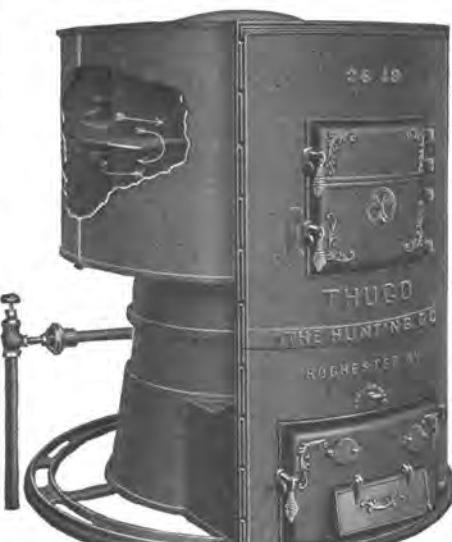


Fig. 7066B

THUCO PIPELESS FURNACES

DIMENSIONS OF THUCO FURNACES

No.....		2649	2444	2244	2038
Diameter of Fire Pot.....inches		26	24	22	20
Depth of Fire Pot....."		15	14½	14	14
Diameter of Steel Radiator....."		43	38	37	32
Height of Steel Radiator....."		24	23	20	20
Gauge of Steel in Radiator.....		14	14	14	4
Smoke Collar.....inches		8	8	7	7
Diameter of Casing....."		49	44	44	38
Height of Casing....."		50	50	48	46
Weight.....pounds		1165	1025	1000	775
Approximate Capacity.....cubic feet		35000	27500	22000	15000
Grate Surface.....cubic inches		533	452	375	316

CASING DIMENSIONS

Circumference of Top Ring.....inches		155	140	139	120½
Width of Galvanized for Bottom Casing.....inches		24	24	22	22
Width of Galvanized for Top Casing....."		26	26	26	24
Length of Galvanized for Bottom Casing.....inches		133½	124	106	105
Length of Galvanized for Top Casing....."		133½	124	120	105

CAPACITY OF PIPES AND REGISTERS

ROUND PIPES

Diameter Pipe Inches	Area in Square Inches	Diameter of Pipe Inches	Area in Square Inches	Diameter of Pipe Inches	Area in Square Inches
7	38	12	113	22	380
8	40	14	154	24	452
9	63	16	201	26	531
10	78	18	254	28	616
11	95	20	314	30	707

REGISTERS

Size of Opening Inches	Capacity Square Inches	Size of Opening Inches	Capacity Square Inches	Size of Opening Inches	Capacity Square Inches
6x10	40	10x14	93	20x20	267
8x10	53	10x16	107	20x24	320
8x12	64	12x15	120	20x26	347
8x15	80	12x19	152	21x29	406
9x12	72	14x22	205	27x27	486
9x14	84	15x25	250	27x38	684
10x12	80	16x24	256	30x30	600

The Thuco Furnace is equipped with a specially designed automatic water tank, which feeds moisture to the air after it has been raised to a proper temperature and before it leaves the furnace, so that before it comes into the home it is properly moistened and creates a very comfortable and healthful atmosphere. Homes heated in this manner are very comfortable at 68 degrees, where without the moisture one would shiver at 73 degrees. In other words, the furnace can be run on much less coal when the air is properly moistened.

REGISTERS

**STYLE No. 40—PLAIN LATTICE—FOR WALL—ALL STEEL
REVERSIBLE WAFER, i.e., THE SAME REGISTER SETS EITHER WAY**

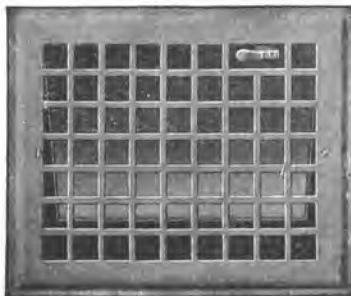


Fig. 31838A



Fig. 31838B

Size Inches	PRICE, EACH			
	Black	White	Oxidized Copper	Dull Brass or Nickel-plated
8x10	1.65	2.00	3.15	3.85
8x12	1.90	2.30	3.65	4.40
9x12	2.10	2.55	4.00	5.10
10x12	2.40	2.90	4.40	5.50

Size Inches	PRICE, EACH			
	Black	White	Oxidized Copper	Dull Brass or Nickel-plated
10x14	3.15	3.80	5.25	6.55
12x14	4.35	5.25	6.85	8.25
12x15	4.50	5.40	7.00	8.50
.....

BASEBOARD REGISTERS

Style No. 99
One-piece—All Steel

Style No. 900
Two-piece—All Steel



Fig. 31838C



Fig. 31838D

No.	Depth of Stackhead Inches	Size Inches
5 $\frac{5}{8}$	5 $\frac{5}{8}$	8x10
5 $\frac{5}{8}$	5 $\frac{5}{8}$	9x12
6 $\frac{1}{8}$	6 $\frac{1}{8}$	10x12
6 $\frac{5}{8}$	6 $\frac{5}{8}$	10x12
6 $\frac{5}{8}$	6 $\frac{5}{8}$	10x13
7 $\frac{1}{8}$	7 $\frac{1}{8}$	12x14
8 $\frac{5}{8}$	8 $\frac{5}{8}$	10x13
8 $\frac{5}{8}$	8 $\frac{5}{8}$	12x14
8 $\frac{5}{8}$	8 $\frac{5}{8}$	12x15

No.	Depth of Stackhead Inches	Size Inches	PRICE, EACH		
			Black	Oxidized Copper	Dull Brass or Nickel-plated
5 $\frac{5}{8}$	5 $\frac{5}{8}$	8x10	2.00	3.50	3.85
5 $\frac{5}{8}$	5 $\frac{5}{8}$	9x12	2.50	4.00	4.40
6 $\frac{1}{8}$	6 $\frac{1}{8}$	10x12	3.65	5.40	6.00
6 $\frac{5}{8}$	6 $\frac{5}{8}$	10x12	3.75	5.50	6.10
6 $\frac{5}{8}$	6 $\frac{5}{8}$	10x13	4.20	6.20	7.00
7 $\frac{1}{8}$	7 $\frac{1}{8}$	12x14	5.85	8.00	9.00
8 $\frac{5}{8}$	8 $\frac{5}{8}$	10x13	5.00	7.00	8.00
8 $\frac{5}{8}$	8 $\frac{5}{8}$	12x14	6.50	8.50	9.50
8 $\frac{5}{8}$	8 $\frac{5}{8}$	12x15	7.25	9.75	11.25

REGISTERS

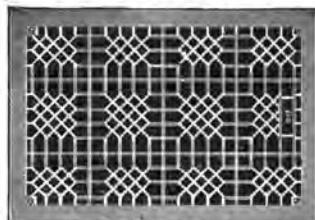


Fig. 6838A

Black Japanned				Oxidized Copper Plated			White Japanned	
Opening Inches	Price Register Each	Price Register Face Each	Price Floor Border Each	Price Register Each	Price Register Face Each	Price Floor Border Each	Price Register Each	Price Register Face Each
6x 6	1.50	.90	1.15	2.70	2.10	2.35	1.80	1.20
6x 8	1.55	1.00	1.15	2.80	2.25	2.40	1.85	1.30
6x 9	1.60	1.05	1.20	2.95	2.40	2.55	1.90	1.35
6x10	1.60	1.05	1.20	3.00	2.45	2.60	1.95	1.40
6x12	1.85	1.25	1.45	3.50	2.90	3.10	2.25	1.60
7x10	1.65	1.10	1.25	3.10	2.55	2.70	2.00	1.40
8x 8	1.60	1.05	1.20	3.00	2.45	2.60	1.95	1.40
8x10	1.65	1.10	1.25	3.15	2.60	2.75	2.00	1.45
8x12	1.90	1.30	1.50	3.65	3.05	3.25	2.30	1.70
8x15	3.80	2.60	2.60	6.00	4.80	4.80	4.55	3.35
9x12	2.10	1.45	1.65	4.00	3.35	3.55	2.55	1.90
9x14	3.10	2.15	2.15	5.20	4.25	4.25	3.70	2.75
10x12	2.40	1.70	1.75	4.40	3.70	3.75	2.90	2.20
10x14	3.15	2.20	2.20	5.25	4.30	4.30	3.80	2.85
10x16	4.85	2.95	2.95	7.20	5.30	5.30	5.85	3.95
12x15	4.50	2.90	2.90	7.00	5.40	5.40	5.40	3.80
12x16	5.60	3.50	3.50	8.25	6.15	6.15	6.70	4.60
12x17	6.35	3.80	3.80	9.00	6.45	6.45	7.60	5.05
12x18	6.80	3.90	3.90	9.55	6.65	6.65	8.15	5.25
12x19	7.50	4.00	4.00	10.35	6.85	6.85	9.00	5.50
14x18	9.00	4.50	4.50	12.00	7.50	7.50	10.80	6.30
14x20	9.50	4.80	4.80	13.00	8.50	8.50	11.25	6.40
14x22	10.50	5.00	5.00	14.50	9.00	9.00	12.00	6.50
16x20	12.35	6.10	6.10	16.55	10.30	10.30	13.60	7.35

Electro Plated, Brass, Bronze or Nickel

Opening Inches	Price Register Each	Price Register Face Each	Price Floor Border Each	Opening Inches	Price Register Each	Price Register Face Each	Price Floor Border Each
6x 6	3.00	2.40	2.95	10x12	5.50	4.80	5.35
6x 8	3.10	2.50	3.00	10x14	6.55	5.60	6.00
6x 9	3.40	2.85	3.45	10x16	9.60	6.70	7.20
6x10	3.50	2.95	3.60	12x15	8.50	6.90	7.60
6x12	4.20	3.60	4.10	12x16	9.75	7.65	8.25
7x10	3.80	3.25	3.80	12x17	10.60	8.05	8.65
8x 8	3.70	3.15	3.65	12x18	11.25	8.35	9.00
8x10	3.85	3.30	3.90	12x19	12.25	8.75	9.25
8x12	4.40	3.75	4.40	14x18	18.50	12.00	12.15
8x15	7.00	5.80	6.40	14x20	20.50	13.00	12.75
9x12	5.10	4.45	5.00	14x22	22.50	14.50	13.50
9x14	6.50	5.50	5.95	16x20	24.60	16.00	14.00

FURNACE PIPE AND FITTINGS SINGLE WALL, SQUARE

Five-foot Length of Made-up
Pipe

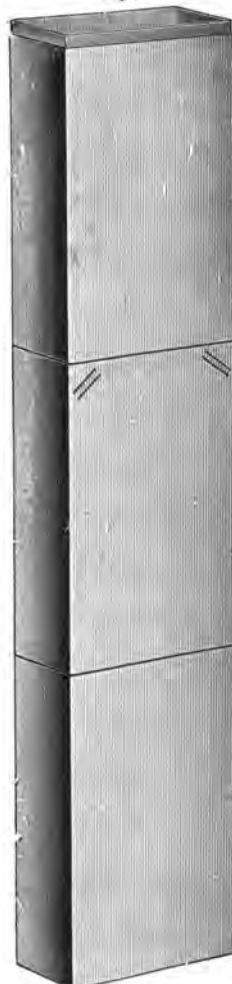


Fig. 42049A

R-45° Angle



Fig. 42049B

Two-way N Tee

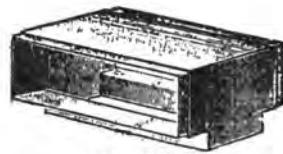


Fig. 42049C

K Elbow

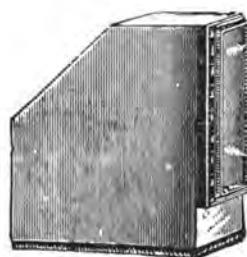


Fig. 42049D

Two-way J Tee

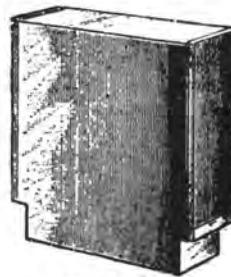


Fig. 42049E

Size inches	3x9	3½x10	3½x12	3½x14	4x12
Price, Single Wall Pipe (Made-up) . . . per ft.	.38	.40	.44	.46	.48
Price, Single Wall Pipe (Nested) . . . per ft.	.36	.38	.42	.44	.46
Price 45° Angles R, each " 90° " (2-45°)S	.40	.40	.44	.54	.64
Price, 90° Angles M "	.80	.80	.88	1.08	1.28
" Offset (2-45°)T	.70	.70	.80	.90	1.00
Price, Two-way Tees N each	.80	.80	.88	1.08	1.28
Price, Through Tee O	.70	.70	.80	.90	1.00
Price, Two-way Tee J	1.00	1.10	1.40	1.70	2.00
Price, Side Elbow K "	1.00	1.00	1.08	1.28	1.40
" " 45° Angle L	.50	.50	.54	.64	.70
Price, Floor Register Box, D, W, X, Z each	.70	.70	.80	.90	...
" Side Wall Box E, Vertical or Horizontal "	.70	.70	.80	.90	...
" Side Wall 2 Registers I, Vertical or Horiz. "	.80	.80	.90	1.00	...
Price, Boots A each	.70	.70	.80	.90	...
" " B "	.70	.70	.80	.90	...
" " C "	.70	.70	.80	.90	...
" " F "	.70	.70	.80	1.00	...
" " G "	.70	.70	.80	1.00	...
" " H "	.70	.70	.80	1.00	...
" Offset Boot (4-inch Offset) "	.70	.70	.80	1.00	...

FURNACE PIPE AND FITTINGS

Nested Round Tin Furnace Pipe



Fig. 42052A

Four-piece Adjustable Tin Elbow



Fig. 42052B

Four-piece Adjustable Galvanized Elbow



Fig. 42052C

NESTED ROUND TIN FURNACE PIPE

Locks without tools. Put up in casks containing 50 feet of one size.

Size.....	inches	8	9	10	12	14	16
Price, 1C Tin.....per foot		.33	.35	.39	.45	..	
" IX "	"	.39	.41	.45	.53	.70	

NESTED ROUND GALVANIZED PIPE

For smoke pipe and cold air ducts. Made with a heavy shoulder that securely holds the joint in place.

Size.....	inches	6	7	8	9	10	12	14	16
Price, 26-Gauge.....per foot		.36	.40	.42	.44	.48	.64	.70	.80
" 24- "	"	.46	.50	.54	.58	.64	.84	.88	.96
Size.....	inches	18	20	22	24	26	28	30	
Price, 26-Gauge.....per foot		1.00	1.20	1.50	1.80	2.10	2.40	2.70	....

FOUR-PIECE ADJUSTABLE 90° TIN ELBOWS

Size.....	inches	8	9	10	12	14	16
Price, 1C Tin.....each		.46	.50	.60			
" IX "	"	.58	.64	.76	1.00	1.50	2.00

FOUR-PIECE ADJUSTABLE 90° GALVANIZED ELBOWS

Size.....	inches	6	7	8	9	10	12
Gauge.....		26	26	26	26	26	24
Price.....each		.50	.60	.70	.80	1.00	1.40

TWO-PIECE ADJUSTABLE GALVANIZED ANGLE

Size.....	inches	6	7	8	9	10	12
Gauge.....		26	26	26	26	26	24
Price, 30°.....each		.42	.44	.48	.56	.64	.80
" 45°....."		.42	.47	.54	.63	.77	.90

ADJUSTABLE GALVANIZED ELBOWS

Made of 26-gauge iron, with angle iron cleats and bolts for tightening and loosening the adjustment.

Size.....	inches	14	15-16	18	20	22	24	26	28	30
Price, 4-piece, Adj. to 90°.....each		1.80	2.40	3.00	3.60	4.40	5.20	6.00	7.00	8.00
" 2 " " " " 45°....."		1.00	1.50	1.80	2.00	2.30	2.60	3.00	3.50	4.00
" 3 " " " " 60°....."		1.40	1.60	2.20	2.90	3.20	3.70	4.20	4.90	5.60
" 2 " " " " 30°....."		.90	1.00	1.50	1.80	2.00	2.30	2.60	3.00	3.50

DAYTON UNISYSTEM WATER SERVICE

FOR SHALLOW WELLS—ELECTRIC MOTOR DRIVE

SELF-STARTING—SELF-STOPPING—SELF-PRIMING—SELF-OILING



Fig. 7188A

The Dayton Unisystem is a complete automatic water supply system in one unit. It will automatically pump from wells, cisterns, lakes, springs, or from any source where the water level is not more than 22 feet below the pump.

Designed to give all year round uninterrupted service in supplying bath room, kitchen, laundry and other usual fixtures.

The lubricating arrangement requires but little attention, as all bearings are enclosed in a dust proof case and run in an oil bath. Oiling in one place two or three times a year is sufficient.

The pump is equipped with motor made by a recognized motor manufacturer and has a liberal factor of safety. All motors for alternating current are of the Repulsion-Induction type, recognized as superior for pump service.

The Dayton pump has separate water end and easily accessible valves and piston. In case of freezing the water end can be replaced quickly and cheaply. The piston with both cup leathers unscrews bodily from the piston rod.

An important feature is the two-bearing crank shaft. The connecting rod is held rigidly and the short bearings are easy to lubricate properly, thus insuring long life and quiet operation. The automatic switch is constructed with specially tempered brass diaphragm,

which also adds to quietness and wearing qualities.

No assembling is necessary after it is delivered. To make the installation, the intake is connected to the suction pipe and the discharge from the tank to the house service line. The motor leads are connected to the source of electric current and the installation is complete.

No. 1:—For summer cottages or camps where only a limited amount of water is desired for cooking and washing purposes.

No. 1-A:—For residences having one bath tub, lavatory, kitchen sink and laundry trays.

No. 1-B:—Average town or suburban residence having two bath tubs, lavatory, laundry trays, etc., and where municipal water service is not available and where water is desired for inside purposes only.

No. 2:—Town or farm residences having a shower in addition to tub baths and the usual other rain water fixtures, where only a limited amount of water is desired for sprinkling and other outside uses in addition to supplying the usual inside fixtures.

No. 3:—For residences with water for all purposes, including sprinkling, watering stock, etc., where the system will not be subjected to any unusual heavy demand at any particular time requiring tank storage in excess of that furnished.

No.	Pumping Capacity per Hour Gallons	Kind of Tank	Capacity of Tank Gallons	Dimensions Inches	Approximate Shipping Weight Pounds
1	100	Black Iron	30	22x28x32	190
1-A	100	Galv. "	40	27x30x40	245
1-B	160	" "	40	27x30x40	265
2	240	" "	40	29x30x40	275
3	350	" "	40	29x30x40	340

DAYTON SHALLOW WELL PUMPING UNITS

ELECTRIC MOTOR DRIVE

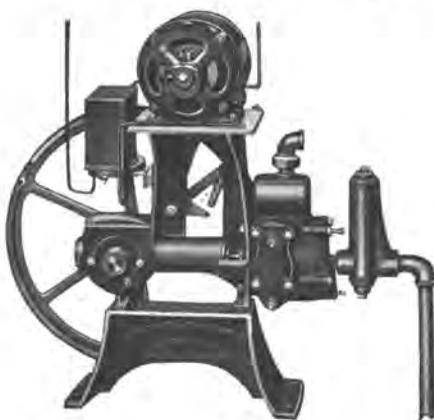


Fig. 7191A

No.	Pumping Capacity per Hour Gallons	Maximum Pressure Pounds	DIMENSIONS, INCHES			Suction Inches	Discharge Inches	Approx. Shipping Weight Pounds
			Height	Width	Depth			
100	100	45	22	22	12	3/4	1/2	120
160	160	45	22	24	12	3/4	1/2	140
240	240	45	26	26	13	3/4	1/2	165
350	350	50	30	30	15	1	3/4	220
350-A	350	75	32	30	16	1	3/4	300

COMPLETE SHALLOW WELL SYSTEMS

With tanks of 80-gallon capacity or larger, for use where larger tank storage is desired than is provided by Dayton Unisystems.

Where the flow of the source of supply is limited a small pumping unit must be provided pumping into a large storage tank. With an unlimited supply a larger pump can be installed with a smaller storage tank to attain the same results. Though the standard systems are listed with tanks only up to 220 gallons they can be provided with any size tanks.

These systems listed below are furnished with pipe and fittings between tank and pump.

SERIES No. 160 SYSTEMS

No.	Pumping Capacity per Hour Gallons	Cap. of Tank Gallons	DIMENSIONS INCHES			Approx. Shipping Weight Pounds
			Height	Width	Depth	
162	160	80	63	29	31	290
163	160	120	63	33	36	360
164	160	220	75	39	42	500

SERIES No. 240 SYSTEMS

No.	Pumping Capacity per Hour Gallons	Cap. of Tank Gallons	Height	Width	Depth	Approx. Shipping Weight Pounds
242	240	80	63	30	36	330
243	240	120	63	31	40	400
244	240	220	75	34	46	540

SERIES No. 350 SYSTEMS

No.	Pumping Capacity per Hour Gallons	Cap. of Tank Gallons	Height	Width	Depth	Approx. Shipping Weight Pounds
352	350	80	63	30	46	420
353	350	120	75	34	52	475
354	350	220	75	40	58	600



Fig. 7191B

DAYTON WATER SYSTEMS
ELECTRIC MOTOR DRIVE
No. 600 SHALLOW WELL PUMPING UNITS

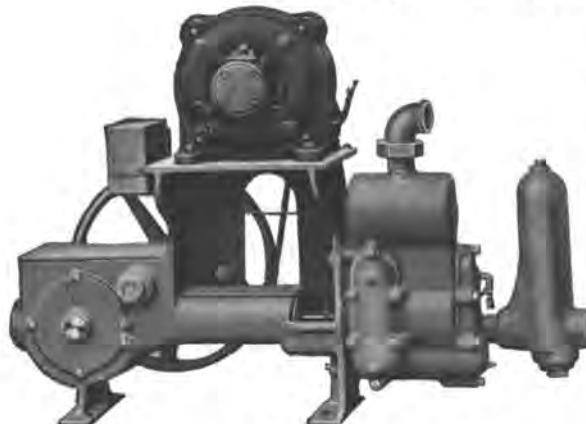


Fig. 7195A

intake valve for pressure tank service, combined vacuum chamber and suction strainer, union connections for suction and discharge, pressure relief valve, oil can and wrench. Floor space required 18x37, inches. Height depends on make of motor but is about 29 inches.

No.	Cap. per Hr. Gals.	Motor H. P.	Max. Pressure Lbs.	Pump Pulley In.	Suction In.	Dis- charge In.		Approx. Wt., Lbs.
						In.	In.	
601	600	1/2	40	13 5/8 x 2 1/4	1 1/2	1 1/4	350	
602	600	1	90	13 5/8 x 2 1/4	1 1/2	1 1/4	390	
720	720	1	75	13 5/8 x 2 1/4	1 1/2	1 1/4	390	
721	720	1 1/2	90	13 5/8 x 2 1/4	1 1/2	1 1/4	425	
901	900	1	50	13 5/8 x 2 1/4	1 1/2	1 1/4	390	
902	900	1 1/2	90	13 5/8 x 2 1/4	1 1/2	1 1/4	425	

Can be furnished without automatic switch for hand control if desired.

No. 640 COMPLETE SHALLOW WELL SYSTEMS

Made up with No. 600 shallow well pumping units. The variation in pumping capacity depends upon service conditions.

Pumping units Nos. 601 to 902 include automatic pressure switch and pressure relief valve, gate valve for discharge line between pump and tank, and pneumatic pressure tank with water pressure gauges.

No.	Size TANK In., Ft.	Cap. Tank Gals.	Stores Water Gals.	Approx.	
				Shipping Wt., Lbs.	Shipping Wt., Lbs.
X- 5	36x 6	315	105	735	
X- 6	36x10	525	175	1050	
X- 7	42x10	720	240	1650	
X- 8	48x10	1000	334	1900	
X- 9	48x16	1500	500	2800	
X-10	48x20	1880	626	3400	
X-11	48x24	2260	753	4000	

No. X-5 is a vertical tank. Nos. X-6 to X-11 are horizontal.

Suitable for large estates, centralized schools, country clubs, factories, etc., where a heavy demand exists for water for all purposes. In addition to supplying inside and outside fixtures it provides some fire protection.

Will pump from wells, lakes, streams, cisterns or any source where the water level is not more than 22 feet below the pump.

The pump is double acting and brass fitted, furnished with motors as listed in table below. Has automatic belt tightening idler, endless leather belt, automatic electric pressure or float switch, automatic air



Fig. 7195B

DAYTON WATER SYSTEMS
GASOLINE ENGINE DRIVE
No. 400 SHALLOW WELL PUMPING UNITS

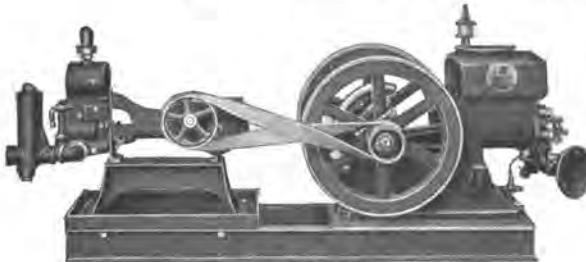


Fig. 7196A

pump. The horizontal suction line does not affect the working of the pump.

It has a capacity of 400 gallons per hour, and is good for pressures up to 75 pounds or to an elevation of 110 feet. This supply is ample for bath room and other fixtures in an average residence and for sprinkling lawn or garden.

Double acting pump, brass fitted, back geared 3 to 1. The body of the pump forms a dust proof oil case in which the main bearings, auxiliary bearings and reduction gears are partially submerged, and it is only necessary to keep the oil chamber filled to a certain level to insure perfect oiling of all parts. The auxiliary shaft is fitted with Hyatt roller bearings. Automatic air intake valve for pressure tank service, 1½ H. P. Hercules water cooled gasoline engine complete with magneto, pressure relief valve, suction strainer, union connections for suction and discharge, oil can and wrench. An automatic circuit breaker for stopping engine is extra.

Requires floor space 54x20 inches. Pump tapped 1-inch for suction and ¾-inch for discharge pipe.

No. 450 COMPLETE WATER SYSTEMS

The pump in this system will supply one faucet running continuously. The tank must be large enough to store sufficient water under pressure to supply the kitchen, bath room and other demands which may be made at the same time.

The 120-gallon tank stores 50 gallons, 220-gallon tank stores 100 gallons, and 315-gallon tank stores 150 gallons under good pressure.

Complete system is made up of No. 400 pump belted to 1½ H. P. gasoline engine complete with magneto, one set of valves, fittings and piping, tank with water and pressure gauges as listed below.

Capacity of Tank Gallons	SIZE OF TANK		Approximate Shipping Wt., Lbs.	Capacity of Tank Gallons	SIZE OF TANK		Approx. Shipping Wt., Lbs.
	In.	Ft.			In.	Ft.	
220	30	6	575	720	42	10	1650
295	30	8	725	940	48	10	1900
315	36	6	735	1500	48	16	2800
525	36	10	1050	1880	48	20	3400

The 6-foot tanks are vertical, and tanks of greater length are horizontal. The 6-foot tanks can be furnished horizontal when so ordered.

This pump when connected with either pressure or elevated tank will supply water for all general purposes, including sprinkling lawn and garden.

For pumping from shallow wells, lakes, or any source where the water level is not more than 22 feet below the



Fig. 7196B

DAYTON WATER SYSTEMS

DAYTON JUNIOR DEEP WELL PUMPING UNITS



Fig. 7201A

No.	Cap. per Hour Gals.	Maximum Depth to Water Feet	Minimum Size Well In.	Sucker Rod In.	Drop Pipe In.	Dis- charge Pipe In.
41	124	125	2	7/16	1	1
41-A	124	125	3 1/2	1 1/8	2	1
42	168	75	2	7/16	1	1
42-A	168	75	3 1/2	1 1/8	2	1
43	193	60	3 1/2	1 1/8	2	1
44	212	35	2 1/2	7/16	1 1/4	1

Nos. 41, 42 and 44 take steel sucker rod; other sizes have wood sucker rod.

No. 45 JUNIOR COMPLETE DEEP WELL WATER SYSTEMS

Illustration shows system set up with pumping unit. It is common to have well near house, with system in basement. In case well is located in open the power head should be installed in a concrete pit 5 or 6 feet deep to prevent freezing.

No. 45 system consists of Dayton Junior deep well pumping unit with automatic pressure switch and all-brass well cylinder, pneumatic pressure tank with water and pressure gauges of any size as listed below, safety and gate valve, piping and fittings between pump and tank, drop pipe and sucker rod.

No.	Cap. Gals.	Shipping		Cap. No.	Size In.	Shipping					
		Tank In	Tank Ft.			Wt. of Pounds	Wt. of Ft.				
T-1	52	18	x	4	110	T-4	295	30	x	8	725
T-2	120	24	x	5	200	T-5	315	36	x	6	735
T-3	220	30	x	6	575	T-6	525	36	x	10	1050

The 4, 5 and 6-foot tanks are vertical. The 8 and 10-foot tanks are horizontal. The 6-foot tanks can be furnished horizontal if desired.

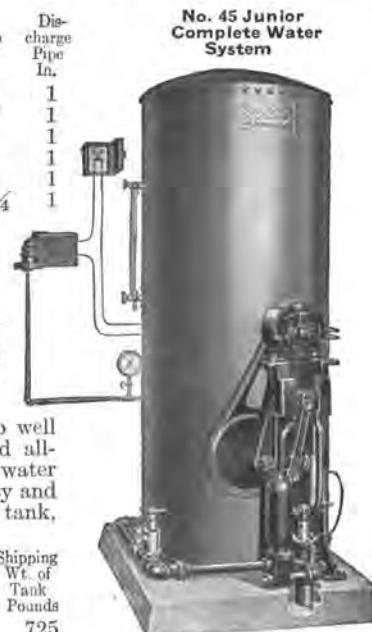


Fig. 7201B

DAYTON WATER SYSTEMS

6-INCH STROKE DEEP WELL PUMPING UNITS

Motor Direct Geared

Silent Chain Drive

Long Belt Drive

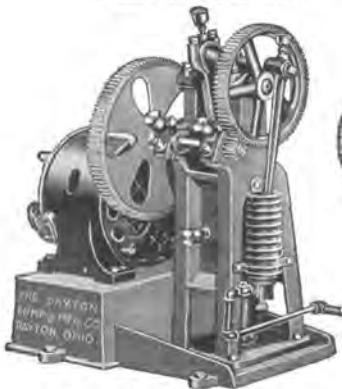


Fig. 7202A

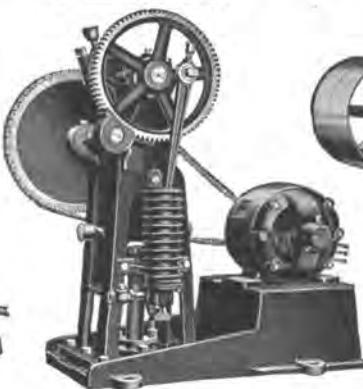


Fig. 7202B



Fig. 7202C

For use where pressure tanks have already been provided and for pumping into open elevated tanks. Can be started and stopped automatically by float switch on open tanks or pressure switch on pneumatic pressure tanks.

Power head with air pump attached operated by $\frac{1}{2}$ H. P. alternating current 60 cycles, single phase 110 or 220 volt motor, or direct current 32, 110 or 220 volt motor. Maximum pressure in tank, 50 pounds.

No.	Capacity per Hour Gals.	Maximum Depth to Water, Ft.	Minimum Size of Well, In.	L. D. Cylinder Inches	Sucker Rod Inches	Drop Pipe Inches	Discharge Pipe Inches
61	137	175	2'	1 $\frac{1}{2}$	$\frac{7}{8}$ -Steel	1	1
61-A	137	175	3 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{8}$ -Ash	2	1
62	187	125	2	1 $\frac{3}{4}$	$\frac{7}{8}$ -Steel	1	1
62-A	187	125	3 $\frac{1}{2}$	1 $\frac{3}{4}$	1 $\frac{1}{8}$ -Ash	2	1
63	215	100	3 $\frac{1}{2}$	1 $\frac{7}{8}$	1 $\frac{1}{8}$ -Ash	2	1
64	245	75	2 $\frac{1}{2}$	2	$\frac{7}{8}$ -Steel	1 $\frac{1}{4}$	1
65	309	50	4	2 $\frac{1}{4}$	1 $\frac{1}{8}$ -Ash	2 $\frac{1}{2}$	1
66	382	30	3	2 $\frac{1}{2}$	$\frac{7}{8}$ -Steel	1 $\frac{1}{2}$	1

No. 60 COMPLETE DEEP WELL WATER SYSTEMS

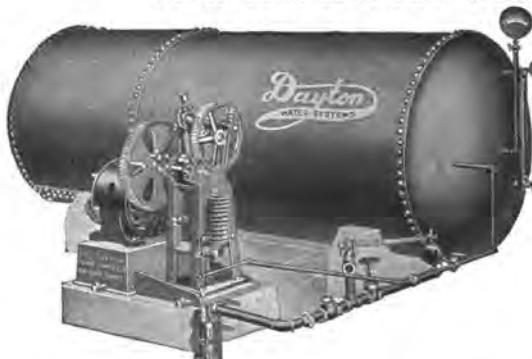


Fig. 7202D

The No. 60 system consists of 6-inch stroke deep well pumping unit with air pump attached, with $\frac{1}{2}$ H. P. motor, pressure tank with gauges, air chamber and check valve, etc., pipe fittings, automatic electric pressure switch, well rod and drop pipe.

No.	Cap Tank Gals.	Size In. Ft.	Approx Shipping Wt., Lbs.
T-2	120	24 x 5	200
T-3	220	30 x 6	575
T-4	295	30 x 8	725
T-5	315	36 x 6	735
T-6	525	36 x 10	1050
T-7	720	42 x 10	1625
T-8	940	48 x 10	1900

The 5 and 6-foot tanks are vertical; 7, 8 and 10-foot tanks are horizontal. The 6-foot tank can be furnished horizontal if desired.

WESTCO TANKLESS WATER SYSTEMS



Fig. 1979A

The Westco Tankless Water System is made possible because of the ability of the pump to deliver, in a steady flow, large volumes of water under constant pressure against varying heights, which need not be predetermined. No tank is required. It is simple, complete, compact and dependable.

The illustration shows all that there is to this complete, automatic water system. It consists of a Westco Pump, motor, automatic electric control switch, compression chamber, necessary fittings and connections complete ready for installation. Today thousands are in successful operation throughout the United States.

SPECIFICATIONS

PUMPS.—Solid bronze casings and covers; bronze impellers; monel metal shafts, ball thrust outboard bearings.

AUTOMATIC SWITCHES.—Perfected Westco, designed and built especially for Westco System Service.

MOTORS.—Only approved types and makes used.

UNIONS.—Ground joints.

COUPLINGS.—Flexible and noiseless, Westco design.

ASSEMBLY.—All mounted on one-piece substantial base, as shown.

FINISH.—Black enamel bases, motors and compression tanks; material and finish of all exposed parts made to avoid rust or corrosion.

Model Pump	No. of System	Minimum Capacity G. P. H.	Maximum Capacity G. P. H.	MOTOR SPECIFICATIONS					Approx. Shipping Weight Pounds
				H. P.	Volts	Cycle	Phase	Current	
CC	41	200	350	1/4	220-110	**	.....	D.C.	165
CC	41	200	350	1/4	32	.....	.....	D.C.	165
CC	*41	200	350	1/4	110-220	60	Single	A.C.	185
CC	*41	200	300	1/4	110-220	25	"	A.C.	185
AAB	45	400	600	1/2	110-220	60	"	A.C.	215
AAB	45	400	600	1/2	110	60	2 or 3	A.C.	215
XAA	*45	300	450	1/2	110-220	25	Single	A.C.	215
AAB	45	400	600	1/2	220-110	.....	.....	D.C.	215
L	*50	700	1000	1	110-220	60	Single	A.C.	425
L	50	700	1000	1	110	60	2 or 3	A.C.	425
L	*50	500	800	1	110-220	25	Single	A.C.	425
L	50	700	1000	1	220-110	.....	.....	D.C.	425

*Repulsion-induction type motor used.

**This system is not recommended for use with batteries of less than 180 ampere-hour capacity.

Prices upon application.

LEADER SHALLOW WELL SYSTEMS

OUTFIT No. 45



Fig. 287A

For use where vertical suction distance does not exceed 22 feet, source of supply may be well, lake, cistern or spring. For private home where electric current is available.

Fitted with No. 11 Leader Electric Pumping Unit. Capacity, 150 gallons per hour against maximum pressure of 50 pounds. Complete with motor for all current conditions. In ordering be sure to state voltage, whether current is direct or alternating, if alternating, whether one, two or three-phase and what cycle.

The automatic pressure controller is set to cut-in at 20 pounds minimum and out at 40 pounds maximum.

All valves, gauges, motor, controller, pipe and fitting furnished assembled as shown in above illustration, including foot valve.

SIZE D-45

As illustrated, with 18-inch by 48-inch welded, black tank. Total capacity, 50 gallons. Shipping weight, 315 pounds.

SIZE E-45

With 22-inch by 5-foot welded, black tank. Total capacity, 100 gallons. Shipping weight, 395 pounds.

SIZE A-45

With 24-inch by 5-foot welded, black tank. Total capacity, 120 gallons; working capacity, 80 gallons. Shipping weight, 445 pounds.

SIZE B-45

Complete with 30-inch by 5-foot rivet-weld, black tank. Total capacity, 180 gallons; working capacity, 120 gallons. Shipping weight, 575 pounds.

SIZE F-45

Complete with 30-inch by 6-foot rivet-weld, black tank. Total capacity, 220 gallons; working capacity, 145 gallons. Shipping weight, 625 pounds.

SIZE C-45

Complete with 36-inch by 5-foot rivet-weld, black tank. Total capacity, 265 gallons; working capacity, 175 gallons. Shipping weight, 685 pounds.

Systems can be furnished with extra tank for both hard and soft water supply with necessary fittings if desired. Tanks can be furnished galvanized instead of black at an extra charge.

Prices and other information upon application.

**PNEUMATIC WATER SUPPLY SYSTEMS
HAND PUMP OUTFIT**

No. 100

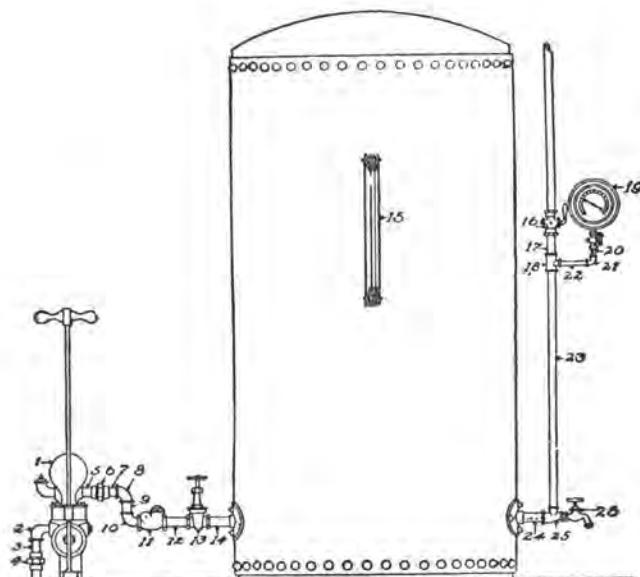


Fig. 9589A

Complete outfit, as shown, with vertical tank and the following accessories:

1. Double-acting hand force pump with air intake cock, $3 \times 4\frac{1}{2}$ -inch brass-lined cylinder.
2. $1\frac{1}{4}$ -inch galvanized street ell.
3. $1\frac{1}{4}$ -inch galvanized short nipple.
4. $1\frac{1}{4}$ -inch galvanized union.
5. 1-inch galvanized short nipple.
6. 1-inch galvanized union.
7. 1-inch galvanized short nipple.
8. 1-inch galvanized ell.
9. 1-inch galvanized short nipple.
10. 1-inch galvanized street ell.
11. 1-inch brass check valve.
12. 1x4-inch galvanized nipple.
13. 1-inch brass gate valve.
14. 1x4-inch galvanized nipple.
15. $\frac{1}{2}$ -inch R. B. I. W. water gauge.
16. $\frac{5}{8}$ -inch R. B. stop and waste cock.
17. $\frac{5}{8} \times 4$ -inch galvanized nipple.
18. $\frac{3}{4} \times \frac{3}{4} \times \frac{1}{4}$ -inch galvanized tee.
19. 5-inch I. C. pressure gauge.
20. $\frac{1}{4}$ -inch galvanized short nipple.
21. $\frac{1}{4}$ -inch galvanized ell.
22. $\frac{1}{4} \times 4$ -inch galvanized nipple.
23. $\frac{3}{4} \times 30$ -inch galvanized pipe.
24. 1x4-inch galvanized nipple.
25. $1 \times \frac{1}{2} \times \frac{3}{4}$ -inch galvanized tee.
26. $\frac{1}{2}$ -inch R. B. hose babb.

No. 100, Complete Hand Pump Outfit, as listed above, with 30-inch by 6-foot Pneumatic Pressure Tank; Capacity, 220 Gallons, each.....

NOTE.—Larger or smaller tanks may be substituted at a difference in price, corresponding to regular pneumatic pressure tank list. Can also be furnished with horizontal tank.

LEADER HYDRO-PNEUMATIC TANKS

RIVETED AND RIVET-WELD



Fig. 34119A

RIVETED TANKS

All riveted hydro-pneumatic tanks are tested to 125 pounds to the square inch and guaranteed for a working pressure of 85 pounds to the square inch.

Cap. Gallons	Diam. Inches	Length Feet	Weight Pounds	Price Each	Cap. Gallons	Diam. Inches	Length Feet	Weight Pounds	Price Each
120	24	5	350	120.00	525	36	10	1000	295.00
140	24	6	400	135.00	720	42	10	1600	425.00
180	30	5	450	155.00	1000	42	14	2100	545.00
220	30	6	500	172.00	940	48	10	1900	490.00
295	30	8	650	212.00	1500	48	16	3100	690.00
365	30	10	800	244.00	2260	48	24	4400	965.00
315	36	6	700	205.00	.....	.....	.....	.....	.....

RIVET-WELD TANKS

All rivet-weld hydro-pneumatic tanks are tested to 125 pounds to the square inch and are guaranteed for working pressure of 85 pounds to the square inch. They have seams riveted and welded, and where center girth seams are required they are of the same construction. The shell is flanged over heads and welded.

Cap. Gal.	Diam. Inches	Length Feet	Weight Pounds	Price Each	Capacity Gallons	Diam. Inches	Length Feet	Weight Pounds	Price Each
50	18	4	110	66.00	220	30	6	420	150.00
85	20	5	140	84.00	295	30	8	475	192.00
100	22	5	190	92.00	365	30	10	575	223.00
120	24	5	240	107.00	315	36	6	540	189.00
140	24	6	275	117.00	575	36	10	650	269.00
180	30	5	370	138.00	.....	.....	.....	.....	.....

WELDED TANKS

Welded tanks are suitable only for 50 pounds working pressure. Tapped for vertical installation.

Cap. Gallons	Diam. Inches	Length Feet	Weight Pounds	Price Each	Cap. Gallons	Diam. Inches	Length Feet	Weight Pounds	Price Each
40	18	36	88	51.00	100	22	60	160	82.00
50	18	48	101	57.00	120	24	60	200	86.00
85	20	60	132	71.00	.....	.....	.....	.....	.....

If manholes are ordered in Leader Tanks of diameter 30 inches and less, they will be placed in the head. Above 48 inches they may be placed in head or shell.

FLANGED OPENINGS, MANHOLES, HANDHOLES AND GALVANIZING

Add to list price of tank for extra openings, as follows:

Handhole in Head or Shell.....	each	8.00	Flanges, 3 or 3½ Inches.....	each	9.00
Manhole in Head.....	"	30.00	" 4 Inches.....	"	10.00
" " Shell.....	"	45.00	Galvanizing quoted upon application.		
Flanges, 2 or 2½ Inches.....	"	8.00	.....	.....	.....

CHASE PNEUMATIC DOUBLE ACTING FORCE PUMPS

ANTI-FREEZING—COG GEAR HEAD

WROUGHT STEEL HANDLE BEARER PATENT BRONZE VALVE SEAT

This pump is adapted for deep wells. It is easy working. Has brass upper cylinder $4\frac{1}{2}$ feet below platform.

The base is hollow, with a pipe running through the center for the pump rod to pass through, making the base an air tight chamber which forms a part of the air chamber of the pump. The handle bearer, which is a wrought steel tube, forms the handle support and completes the air chamber.

The upper cylinder is composed of a plunger, a seamless brass cylinder, and an iron inclosing the brass cylinder and forming a water way direct to the discharge pipe. This cylinder is connected to the base by one $1\frac{1}{2}$ -inch pipe which is screwed firmly to the base at one end, while the other end is screwed to the cylinder in the same way, making a strong and compact pump.

By using one pipe the pump is not only strengthened but it furnishes a guide for the pump rod, keeping it from quivering and binding as is commonly the case with force pumps.

The lower cylinder is either brass or brass lined, and is supplied with a patent bronze valve seat, which is free from the effects of the most corrosive elements to be found in water.

Suitable to either cased or open wells, and to any depth under 200 feet.

FOR WELLS FROM 25 TO 150 FEET DEEP

Has a $2\frac{1}{2}$ -inch brass or brass-lined lower cylinder tapped for $1\frac{1}{4}$ -inch iron pipe.	
Capacity per Hour	gallons 306
Price, B. L. Cyl. for 4-inch Cased Well each	20.00

" Br. Cyl. " 3 " " " 21.00

FCR WELLS FROM 25 TO 70 FEET DEEP

Has a 3-inch brass or brass-lined lower cylinder, tapped for $1\frac{1}{4}$ -inch iron pipe.	
Capacity per Hour	gallons 440
Price, B. L. Cyl. for $4\frac{1}{2}$ -in. Cased Well each	20.00

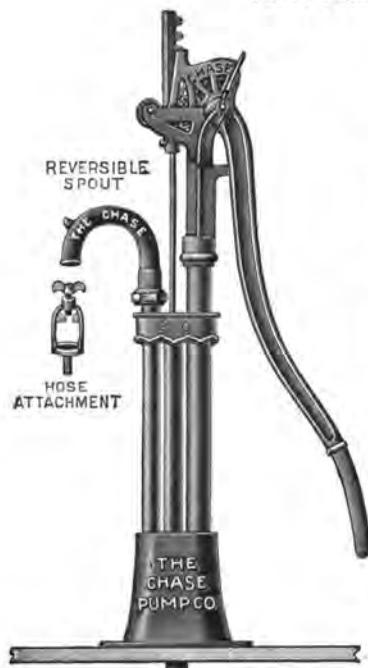
" Br., Cyl. " $3\frac{1}{2}$ " " " 21.00

FOR WELLS FROM 25 TO 60 FEET DEEP

Has a $3\frac{1}{2}$ -inch brass or brass-lined lower cylinder, tapped for $1\frac{1}{2}$ -inch iron pipe.	
Capacity per Hour	gallons 600
Price, with Brass lined Cylinder for 5-inch Cased Well	each 22.00
Price, with Brass Cylinder for 5-inch Cased Well	each 22.50

WINDMILL HEADS

For use on any of the above force pumps.
Price.....each 2.00



No. 7262A

CHASE ADJUSTABLE BASE LIFT PUMPS

WITH COG GEAR HEAD PATENT REVERSIBLE
SIPHON SPOUT, PATENT BRONZE VALVE
SEAT AND POPPET VALVE

ANTI-FREEZING, 4-FOOT SET LENGTH

The spout is attached to the pump-head by means of a union nut, making it reversible, the same as double acting force pumps. By using a connection of this kind with a spout it is not necessary to have a reversible handle-bearer. The peculiar construction of the pump causes the water to flow from the spout in a smooth even stream, equal to any double-acting force pump.

FITTED WITH BRASS, BRASS LINED OR POLISHED CYLINDERS

CAPACITY, 300 GALLONS PER HOUR

No. CR502 has a $2\frac{1}{2}$ -inch brass lined cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.

Price each 12.50

No. CR503 has a $2\frac{1}{2}$ -inch brass cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.

Price each 13.50

CAPACITY, 440 GALLONS PER HOUR

No. CR504 has a 3-inch brass lined cylinder with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.

Price each 13.00

No. CR505 has a 3-inch brass cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.

Price each 14.00

CAPACITY, 600 GALLONS PER HOUR

No. CR506 has a $3\frac{1}{2}$ -inch brass lined cylinder, with bronze seat, tapped for $1\frac{1}{2}$ -inch pipe.

Price each 14.50

No. CR507 has a $3\frac{1}{2}$ -inch brass cylinder, with bronze valve seat, tapped for $1\frac{1}{2}$ -inch pipe.

Price each 15.50

CAPACITY, 440 GALLONS PER HOUR

No. CR510 has a 3-inch polished iron cylinder, with iron seat, tapped for $1\frac{1}{4}$ -inch pipe.

Price each 10.25

CAPACITY, 600 GALLONS PER HOUR

No. CR512 has a $3\frac{1}{2}$ -inch polished iron cylinder, with iron seat, tapped for $1\frac{1}{2}$ -inch pipe.

Price each 11.50



Fig. 85A

CHASE ADJUSTABLE BASE FORCE PUMPS

SINGLE ACTING, COG GEAR

WITH REVERSIBLE SIPHON SPOUT
 PATENT BRONZE VALVE SEAT
 AND POPPET VALVE

ANTI-FREEZING WITH 4-FOOT SET LENGTH

The spout is attached to the pump-head by means of a union nut, making it reversible, the same as double acting force pumps. By using a connection of this kind with a spout it is not necessary to have a reversible handle-bearer. The peculiar construction of the pump causes the water to flow from the spout in a smooth even stream, equal to any double-acting force pump.

CAPACITY, 300 GALLONS PER HOUR

No. CR552 has a $2\frac{1}{2}$ -inch brass lined cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.
 Price each 14.00

CAPACITY, 300 GALLONS PER HOUR

No. CR553 has a $2\frac{1}{2}$ -inch brass cylinder, with bronze seat tapped for $1\frac{1}{4}$ -inch pipe.
 Price each 15.00

CAPACITY, 440 GALLONS PER HOUR

No. CR554 has a 3-inch brass lined cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.
 Price each 14.50

CAPACITY, 440 GALLONS PER HOUR

No. CR555 has a 3-inch brass cylinder, with bronze seat, tapped for $1\frac{1}{4}$ -inch pipe.
 Price each 15.50

CAPACITY, 600 GALLONS PER HOUR

No. CR556 has a $3\frac{1}{2}$ -inch brass lined cylinder, with bronze seat, tapped for $1\frac{1}{2}$ -inch pipe.
 Price each 16.00

CAPACITY, 600 GALLONS PER HOUR

No. CR557 has a $3\frac{1}{2}$ -inch brass cylinder, with bronze valve seat, tapped for $1\frac{1}{2}$ -inch pipe.
 Price each 17.00

CAPACITY, 440 GALLONS PER HOUR

No. CR560 has a 3-inch polished iron cylinder, with iron seat, tapped for $1\frac{1}{4}$ -inch pipe.
 Price each 11.75

CAPACITY, 600 GALLONS PER HOUR

No. CR561, has a $3\frac{1}{2}$ -inch polished iron cylinder with iron seat, tapped for $1\frac{1}{2}$ -inch pipe.
 Price each 13.00



Fig. t6A

**CHASE FORCE PUMP STANDARDS
FOR TUBULAR OR DEEP WELLS**

No. 2074

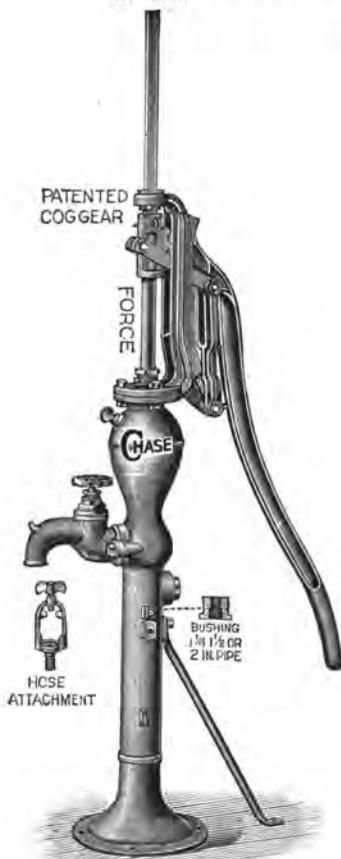


Fig. 7260A

The flanged head is accurately machined and held with three heavy bolts instead of screws as generally used. The head is drilled so as to permit the handle being located at any angle desired. Piston rods on force stand is $1\frac{1}{8}$ inch, welded to windmill bar. No joints to wear or give trouble. The packing nut is extra heavy. Lift stand has $\frac{1}{2}\times 1$ inch flat steel bar full length. The stand proper is a one-piece casting tapped below spout for 2-inch pipe and bushed with combination bushing for $1\frac{1}{2}$ -inch and $1\frac{1}{4}$ -inch pipe. The spout, bolted on, can be furnished with plain or cock spout. The brace is always a support no matter what location of handle may be. All force heads have back outlet.

No. 2074 STANDARDS

With 7-inch stroke for hand use and 10-inch stroke for windmill. Fitted with cog gear handle and cock spout.
Price, No. 2074 each **14.00**

No. 2069 STANDARDS

With 6, 8 and 10-inch adjustable stroke for hand use and 10-inch stroke for windmill use. Fitted with plain handle and plain spout.
Price, No. 2069 each **14.00**

No. 2069

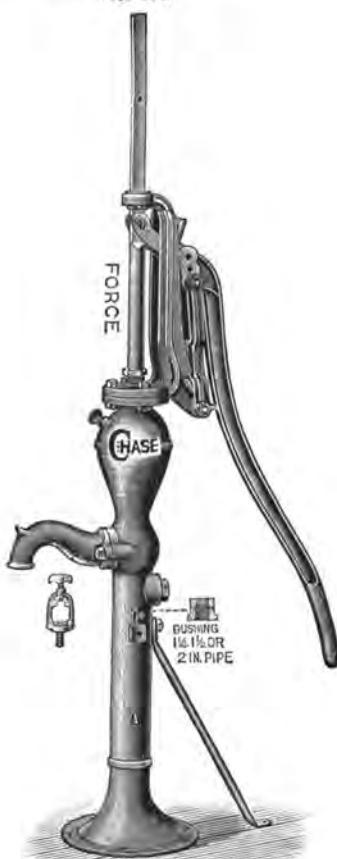


Fig. 7260B

PUMPS

**No. 416 LONG STROKE
PITCHER PUMPS**



Fig. 26528A

No. 416 represents the Myers Long Stroke Pitcher Pump. The cylinder is bored and highly polished. The handle is adjustable to any angle. Arranged to drop the water to prevent freezing.

Price, 3-inch Polished Cylinder, with Brass Valve Seat, tapped for 1½-inch Pipe.....each 4.25
Price, No. 417, same as No. 416 but with Brass-lined Cylindereach 5.75

**No. R-417 LONG STROKE
PITCHER PUMPS**



Fig. 26528B

This pump was made to meet the demand for a pitcher pump with extra large capacity. It is fitted with patented rolling motion cog gear handle, which can be adjusted to any angle. The cylinder is brass lined. Arranged to drop water to prevent freezing.

Price, with 3-inch Brass-lined Cylinder, with Brass Valve Seat, tapped for 1½-inch Pipe.....each 6.00

**No. 220 BRASS CYLINDER
PITCHER PUMPS**



Fig. 26528C

This 3-inch brass cylinder pitcher pump has patent glass valve seat, rubber fiber check, 1½-inch pipe and revolving top. Base is attached to cylinder by means of 3 heavy bolts.

Price.....each 7.25

**No. R-251 DOUBLE-ACTING
HOUSE FORCE PUMPS**



Fig. 26528D

This pump has reservoir top and siphon spout, which gives continuous flow of water. Reversible handle can be placed at any angle. Double-acting, heavy seamless brass upper and 3-inch lower cylinders patent glass valve seat, fibre rubber check valve and expansion plunger bucket.

Base is attached to cylinder by means of 3 heavy cap screws. Spout has outlet to tank and is furnished with brass cap to close spout, which enables user to force water into overhead tank.

Check valve should be used in discharge pipe above the spout. Tapped for 1½-inch suction pipe.

Price.....each 10.75

PITCHER SPOUT AND BRACKET PUMPS**GOULDS PITCHER SPOUT
PUMPS**

No. 205½ CLOSED TOP



Fig. 29758A

HARTLEY BRACKET PUMPS

No. 451



Fig. 29758C

No.	Diam. Cyl. In.	Stroke Inches	Suction Inches	Price Each Iron
2	3	4	1 1/4	4.75
3	3 1/2	4	1 1/4	5.25
4	4	4	1 1/2	6.25

**NO. 1580 CISTERNS SUCTION
PUMPS**

Fig. 29758B

For suction and lift of 25 feet.

No.	SIZE, INCHES	PRICE, EACH
No.	Diau. Cyl. Suction	Iron Br. Lined
1	2 1/4 1	3.50 5.25
2	2 1/2 1 1/4	3.90 5.75
3	2 3/4 1 1/4	4.40 6.50
4	3 1 1/2	4.80 7.00
5	3 1/4 1 1/2	6.25 9.00
6	3 1/2 1 1/2	7.00 10.00

Can be installed on either end or side of sink. The handle and spout can be set at any angle. Requires no bracket.

It has a polished brass barrel, solid brass rod, brass stuffing box, brass valve seats; suction tapped 1 1/4 inches; 2 1/2-inch barrel; 4-inch stroke.

Price each 8.00

No. 454



Fig. 29758 D

This pump is similar to the above, but has no spout, and is designed to have a bibb-cock attached. It is also tapped on top for 1-inch iron pipe, so that water can be forced to an upper story or tank.

Price each 8.00

Bibb-Cock extra.

MYERS PUMP JACKS

FIG. 2041
No. 366 PUMP JACKS

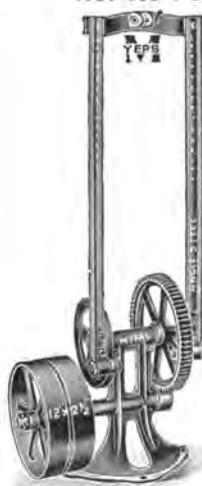


Fig. 21986A

Price, Complete.....each 15.00

FIG. 2001
No. 426 PUMP JACKS

The master double gear pump jack is the latest production, especially designed for use with windmill pumps for deep well work. It has angle steel side arms, and is made extra wide, measuring 13 inches between the gear wheels, which especially adapts it for use with 3-way pumps. It is made with double gears and pinions. Back geared 6 to 1.

Gears and pinions are $1\frac{3}{8}$ -inch face, machine cut. Has 6 and 9-inch stroke.

Price, Complete.....each 21.00

The Myers Pump Jack is designed to be used in connection with any ordinary windmill pump without disarranging the pump or pipes in any manner. Has 6 and 9-inch stroke.

The gear and pinion are machine cut; the connecting arms are angle steel; the crosshead can be adjusted to suit any height stand. The wrist pins are turned steel.

FIG. 1635
No. 425 PUMP JACKS



Fig. 21986C

This pump jack has three different strokes, 5, $7\frac{1}{2}$ and 10-inch. Can be attached to any windmill pump. For use with belt power, windmill or hand power. Back-gearred five to one.

Price, Complete.....each 18.00

FIG. 1767
No. 405 PUMPING JACKS
AND COUNTERSHAFTS



Fig. 21986B



Fig. 21986D

The No. 405 pumping jack which is built in a most substantial and compact form, has heavy, square base or stand; has 15 and 17-inch boxes. Pulley shaft babbitted the entire length and fitted with oilers. The larger gear wheel acts as a face-plate. 16 and 20-inch adjustable stroke. Back geared 8 to 1.

Price, Complete.....each 90.00

PUMP CYLINDERS OR WORKING BARRELS**No. 1652**

Fig. 2533A

No. 1235

Fig. 2533B

No. 1236

Fig. 2533D

No. 1231

Fig. 2533C

No. 1652 PUMP CYLINDERS

Has white bronze valve seat and leather valve, outside top and bottom attachment.
Has AA plunger.

No.	Size Inches	Stroke Inches	Capacity per Stroke Gallons	Fitted for Pipe Inches	Well Rod Inches	PRICE, EACH	
						Iron	Brass Lined
2	2 1/2 x 10	6	.13	1 1/4	3/8	2.20	4.35
4	3 x 10	6	.18	1 1/4	3/8	2.50	5.00
6	3 1/2 x 10	6	.25	1 1/2	7/16	3.50	5.65
8	4 x 10	6	.32	2	7/16	4.50	7.50

No. 1235 PUMP CYLINDERS

Has BB plunger, brass valve and outside top and bottom attachment.

No.	Size Inches	Stroke Inches	Capacity per Stroke Gallons	Fitted for Pipe Inches	Well Rod Inches	PRICE, EACH	
						Brass	Lined
2	2 1/2 x 16	12	.25	1 1/4	3/8	4.40	6.60
4	3 x 16	12	.37	1 1/4	3/8	4.90	7.20
6	3 1/2 x 16	12	.50	1 1/2	7/16	6.60	8.55
8	4 x 16	12	.65	2	7/16	8.75	11.30

No. 1231 PUMP CYLINDERS

Has AA plunger, brass valve and inside top and bottom attachment.

No.	Size Inches	Stroke Inches	Capacity per Stroke Gallons	Fitted for Pipe Inches	Well Rod Inches	PRICE, EACH	
						Brass Body and Plunger	All Brass
2	2 1/2 x 16	12	.26	1 1/4	3/8	6.30	9.20
4	3 x 16	12	.37	1 1/4	3/8	6.85	9.85
6	3 1/2 x 16	12	.50	1 1/2	7/16	8.55	12.75
8	4 x 16	12	.65	2	7/16	11.10	16.10

No. 1236 PUMP CYLINDERS

The No. 1236 has BB plunger. Prices and further information upon application.

BRASS JACKET DRIVE WELL POINTS

GALVANIZED WROUGHT PIPE



Fig. 3A

No	Inside Diam. Inches	Length Point Inches	Length Jacket Inches	PRICE, PER DOZEN					
				No. 60 Gauze	No. 70 Gauze	No. 80 Gauze	No. 90 Gauze	No. 100 Gauze	No. 120 Gauze
74	1	24	18	33.00	40.00	46.00	52.00	62.00	74.00
76	1	30	24	42.00	49.00	56.00	64.00	78.00	94.00
78	1	36	30	51.00	59.00	66.00	76.00	94.00	114.00
80	1	42	36	60.00	68.00	76.00	88.00	120.00	134.00
82	1	48	42	69.00	78.00	86.00	100.00	136.00	154.00
84	1	54	48	78.00	87.00	96.00	112.00	152.00	174.00
86	1 1/4	20	14	30.00	36.00	42.00	50.00	64.00	80.00
90	1 1/4	24	18	36.00	44.00	52.00	60.00	80.00	105.00
94	1 1/4	30	24	46.00	55.00	64.00	75.00	100.00	130.00
98	1 1/4	36	30	56.00	66.00	76.00	90.00	120.00	155.00
100	1 1/4	42	36	66.00	77.00	88.00	105.00	140.00	180.00
102	1 1/4	48	42	76.00	88.00	100.00	120.00	160.00	205.00
106	1 1/4	54	48	86.00	99.00	112.00	135.00	180.00	230.00
110	1 1/4	60	54	96.00	110.00	124.00	150.00	200.00	255.00
112	1 1/4	66	60	106.00	121.00	136.00	165.00	220.00	280.00
114	1 1/4	72	66	116.00	132.00	148.00	180.00	240.00	305.00
136	1 1/2	24	18	48.00	57.00	65.00	78.00	94.00	112.00
140	1 1/2	30	24	60.00	70.00	80.00	96.00	118.00	139.00
144	1 1/2	36	30	72.00	84.00	95.00	114.00	142.00	166.00
146	1 1/2	42	36	84.00	97.00	110.00	132.00	166.00	193.00
148	1 1/2	48	42	96.00	111.00	125.00	150.00	188.00	220.00
150	1 1/2	54	48	108.00	124.00	140.00	168.00	204.00	247.00
152	1 1/2	60	54	120.00	138.00	155.00	186.00	228.00	274.00
154	1 1/2	66	60	132.00	151.00	170.00	204.00	252.00	301.00
156	1 1/2	72	66	144.00	165.00	185.00	222.00	276.00	328.00
160	2	24	18	75.00	85.00	94.00	110.00	130.00	150.00
164	2	30	24	90.00	101.00	112.00	132.00	160.00	185.00
168	2	36	30	105.00	118.00	130.00	154.00	190.00	220.00
170	2	42	36	120.00	134.00	148.00	176.00	220.00	255.00
172	2	48	42	135.00	151.00	166.00	198.00	250.00	290.00
174	2	54	48	150.00	167.00	184.00	220.00	280.00	325.00
176	2	60	54	165.00	184.00	202.00	242.00	310.00	360.00
178	2	66	60	180.00	200.00	220.00	264.00	340.00	395.00
180	2	72	66	195.00	217.00	238.00	286.00	370.00	430.00
184	2 1/2	36	30	180.00	205.00	230.00	260.00	300.00	350.00
188	2 1/2	48	42	230.00	265.00	300.00	340.00	400.00	470.00
192	2 1/2	60	54	280.00	325.00	370.00	420.00	500.00	590.00
196	2 1/2	72	66	330.00	385.00	440.00	500.00	600.00	710.00
200	3	36	30	240.00	275.00	310.00	340.00	410.00	490.00
204	3	48	42	300.00	345.00	390.00	430.00	520.00	630.00
208	3	60	54	360.00	415.00	470.00	520.00	630.00	770.00
212	3	72	66	420.00	485.00	550.00	610.00	740.00	910.00
216	4	48	36	480.00	520.00	560.00	600.00	700.00	810.00
220	4	72	60	630.00	695.00	760.00	840.00	1000.00	1270.00
224	4	96	84	780.00	870.00	960.00	1080.00	1300.00	1610.00
228	4	120	108	930.00	1045.00	1160.00	1320.00	1600.00	2010.00

Open end or well extension points, same list as above.

WELL GOODS

DRIVE SHOES



Fig. 30097A

Price, 6-inch Hand-forged...	each	15.00
" 6 " Drop "	"	30.00

MALLEABLE IRON DRIVE CAPS



Fig. 30097B

Size Inches	Price Each	Size Inches	Price Each
1 1/4	.20	2 1/2	1.00
1 1/2	.24	3	1.25
2	.44	4	1.50

ROD COUPLINGS



Fig. 30097C

Size Inches	PRICE, PER POUND	
	Black	Galv.
3/8	.16	.20
3/8 x 7/16	.16	.20
1/2	.16	.20
5/8	.16	.20

STEEL PUMP RODS

Sizes 3/8, 7/16 and 1/2-inch.	
Price, Bright.....	per pound
" Galvanized.....	....

LEATHER PACKINGS

Lower Valve Leather



Fig. 30097D

Flat Plunger Leather



Fig. 30097E

Outside Diam. In.	For Cyl. In.	Price per Gross	Outside Diam. In.	For Cyl. In.	Price per Gross
2	1 1/2	10.00	4	3 1/2	37.50
2 1/4	1 3/4	12.00	4 1/4	3 3/4	42.50
2 1/2	2	14.50	4 1/2	4	47.50
2 3/4	2 1/4	18.00	5	4 1/4	52.50
3	2 1/2	21.00	5 1/4	4 1/2	60.00
3 1/4	2 3/4	25.00	5 3/4	5	80.00
3 1/2	3	27.50	6 3/4	6	115.00
3 3/4	3 1/4	33.00	....	....	....

CYLINDER CAP LEATHERS



Fig. 30097F

2	1 1/2	7.00	3 3/4	3 1/4	19.00
2 1/4	1 3/4	8.00	4	3 1/2	23.00
2 1/2	2	9.00	4 1/2	4	26.00
2 3/4	2 1/4	10.00	5	4 1/4	28.00
3	2 1/2	12.00	5 1/4	4 1/2	30.00
3 1/4	2 3/4	14.00	5 3/4	5	38.00
3 1/2	3	16.00	6 3/4	6	50.00

CUPPED PLUNGER LEATHERS



Fig. 30097G

Diam. In.	Price per Gross	Diam. In.	Price per Gross	Diam. In.	Price per Gross
1	7.50	2 1/4	29.00	4 1/2	75.00
1 1/4	9.50	3	32.50	4 3/4	85.00
1 1/2	13.00	3 1/4	39.00	5	95.00
1 3/4	17.00	3 1/2	48.00	5 1/4	100.00
2	20.00	3 3/4	54.00	5 1/2	108.00
2 1/4	21.50	4	62.00	5 3/4	118.00
2 1/2	26.00	4 1/4	68.00	6	128.00

STRAINERS AND VALVES

No. 1644
FOOT VALVE AND STRAINER

Fig. 9387A

FOOT VALVES

No. 760
FOOT VALVE WITH
BOLTED STRAINER

Fig. 9387B

No. 471
SPECIAL
FOOT VALVE

Fig. 9387C

No. 1644 FOOT VALVES AND STRAINERS

Size.....	inches	$\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4
Outside Diameter.....	"	$2\frac{3}{8}$	$2\frac{5}{8}$	$2\frac{7}{8}$	$3\frac{3}{4}$	$4\frac{1}{2}$	$5\frac{3}{4}$	
Will go in Gas Pipe.....	"	$2\frac{1}{2}$	3	3	4	5	6	
" " " Well Casing.....	"	$2\frac{1}{2}$	$2\frac{3}{4}$	$3\frac{1}{4}$	4	$4\frac{1}{4}$	$6\frac{1}{4}$	
Approximate Weight.....	pounds	.5	.4	.4	7	11	17	
Price, Black.....	each	2.10	2.25	2.70	3.15	4.10	7.20	
" Galvanized.....	"	2.70	3.15	3.60	4.10	5.00	9.00	

No. 760 FOOT VALVES WITH BOLTED STRAINERS

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	6
Black.....	each	.60	.60	.60	.80	.90	2.00	2.50	3.25
Galv.....	"	.95	.95	1.20	1.65	2.00	3.70	5.00	8.25

No. 471 SPECIAL FOOT VALVES

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	
Black.....	each			1.05	1.20	1.30	1.45	1.75	4.40
Galvanized.....	"					8.25	8.50	9.50	10.00

CHECK VALVES

No. 742 HORIZONTAL



Fig. 9387D

No. 667 VERTICAL



Fig. 9387E

No. 742 HORIZONTAL CHECK VALVES

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Black.....	each	.90	1.10	1.35	1.80	2.50	5.40	6.75	9.00	10.80
Galvanized.....	"	1.35	1.55	2.00	2.70	3.60	8.55	10.80	13.50	15.75

No. 667 VERTICAL CHECK VALVES

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	
Black.....	each	.90	.90	1.00	1.15	1.55	2.80	3.45	
Galvanized.....	"	1.25	1.25	1.35	1.55	2.20	3.45	5.65	

ROADWAY AND VALVE BOXES

ROADWAY BOX
ROUND HEAD
OPEN BASE

Fig. 19366A

ROADWAY AND
VALVE BOX
EXTENSION SECTION

Fig. 19366B

VALVE BOX



Fig. 19366D

VALVE BOX COVERS
REGULAR FLANGED LOCK

Fig. 19366C

ROADWAY BOXES, ROUND HEAD, 4 1/4-INCH SHAFT, OPEN BASE

Number.....	141Q	142Q	142R	143R	144R	145R
Extension.....inches	18-24	27-34	27-42	34-48	39-54	46-60
Price.....each	3.00	3.35	3.90	4.10	4.25	4.55

VALVE BOXES, 5 1/4-INCH SHAFT, NO. 6 BASE

Number.....	AAA	AA	A	B	C	CC
Extension.....inches	17	22-28	28-40	36-48	42-54	48-60
Price.....each	4.60	5.55	5.80	6.30	6.55	6.90
Number.....	D	DD	E	F	G	H
Extension.....inches	42-65	48-72	60-72	60-84	72-84	72-96
Price.....each	7.30	7.90	8.10	8.40	8.80	9.10

BASES FOR VALVE BOXES

No. 6 base, which is for 8-inch valves and smaller, is used as a standard for quoting lengths and prices on valve boxes.

Add or deduct for other bases as follows:

No. 4 Round, for Valves 4 inches and Smaller, deduct.....	.25
" 8 " " " 10 " " add.....	.50
" 16 " " " 12 or 16 inches, add.....	3.50
" 160 Oval, " " " 16 inches and Smaller, add.....	.50
" 162 " " " 20 " " " add.....	3.00

EXTENSION SECTIONS AND COVERS

Extension Sections for Roadway Boxes, Increasing to 18 inches.....	each	1.25
" " " Valve " " " 14 "	"	1.35
Lock Covers for Roadway Boxes, add to List.....	"	.50
" " " Valve " " " "	"	1.25
Plain " " " " " "	"	.85

SERVICE BOXES

BUFFALO PATTERN

Complete Box



Fig. 31943A

Extension Section



Fig. 31943B

HAYS EXTENSION SERVICE BOXES

FOR WATER OR GAS



Fig. 31943E



Fig. 31943F

SECTIONAL VIEW OF GAS & WATER
EXTENSION SERVICE BOX.

2½-INCH SHAFT

No.	Extension Inches	Price Each	No.	Extension Inches	Price Each
88	12	.80	94E	42- 60	1.75
89A	12-20	1.00	95E	48- 66	1.90
90B	18-26	1.05	95G	48- 84	2.30
91C	21-33	1.20	100E	54- 72	2.05
92C	24-38	1.30	100F	54- 78	2.15
92D	24-42	1.45	100G	54- 90	2.45
93D	36-48	1.55	100FX	72-102	2.90
93E	36-54	1.65	100FM	87-111	3.00
94D	42-57	1.70			

EXTENSION SECTIONS

No.	Length of Box Inches	PRICE, EACH	
		2½-inch	3-inch
151	9½	.50	...
152	16½	.60	...
153	28	.75	...
154	33	.85	...
155	20	...	.70
156	24	...	.80
157	30	...	.90

KEYS, COVERS AND BOLTS

Key and Bolt

Covers



Fig. 31943C



Fig. 31943D

Price, Stop-box Keys.....each .10
" Covers....." .30

In ordering above boxes be sure to state whether covers are wanted for water, gas or natural gas.

Size Feet	Extension for ½, ¾, 1-in. Cock 1½-in. Cock 2-in. Cock	PRICE, EACH		
		No. 2 for ½, ¾, 1-in. Cock	No. 3 for 1, 1¼, 1½-in. Cock	No. 4 for 1½, 2-in. Cock
2½	1½ to 2½	2.00	2.30	2.75
3	2 " 3	2.10	2.40	2.90
3½	2½ " 3½	2.20	2.50	3.05
4	3 " 4	2.30	2.60	3.20
4½	3½ " 4½	2.40	2.70	3.35
5	4 " 5	2.50	2.80	3.50
5½	4½ " 5½	2.60	2.90	3.65
6	5 " 6	2.70	3.00	3.80
6½	5½ " 6½	2.80	3.10	3.95
7	6 " 7	2.90	3.20	4.10
7½	6½ " 7½	3.00	3.30	4.25
8	7 " 8	3.10	3.40	4.40
8½	7½ " 8½	3.20	3.50	4.55
9	8 " 9	3.30	3.60	4.70
9½	8½ " 9½	3.40	3.70	4.85
10	9 " 10	3.50	3.80	5.00

Extra cover, 50 cents each; keys, 1.00 each.

HYDRANTS AND STREET WASHERS

CRESCENT HYDRANT



Fig. 9885A

CRESCENT STREET WASHER



Fig. 9885B

Crescent Hydrants and Street Washers are fitted with two pipes. One dry, through which the valve can be withdrawn for packing, the other forming a passage for the water to the spout. Hydrant has stock made in two halves bolted together. Inlet threaded for $\frac{3}{4}$ -inch I. P. and soldering tube for lead pipe. Spout provided with brass bushing for $\frac{3}{4}$ -inch hose coupling. Street washer with same style valves, pipes, etc., as are used with hydrant. Inlet threaded for $\frac{3}{4}$ -inch I. P. and soldering tube for lead pipe. Discharge fitted for $\frac{3}{4}$ -inch half hose coupling.

CRESCENT HYDRANTS AND STREET WASHERS

Length to Set in Ground.....feet	2	3
Price, $\frac{3}{4}$ -inch Hydrants.....each	6.10	6.50
" $\frac{3}{4}$ " St. Washers....."	4.60	5.00
Length to Set in Ground.....feet	4	
Price, $\frac{3}{4}$ -inch Hydrants.....each	6.85	
" $\frac{3}{4}$ " St. Washers....."	5.35	

REPAIRS FOR CRESCENT HYDRANTS AND STREET WASHERS

Valve Case with Inlet Nut and Tube.....each	2.00	Spout.....each	.25
" " only	1.50	Brass Hose Nipple....."	.25
Inlet Nut....."	.15	Plunger Rod, 3 feet....."	.35
Ring Packing for Nut....."	.05	Price to be deducted or added for each ft. from 3 ft.	.05
Inlet Tube....."	.25	Dry Pipe, 3 feet.....each	.60
Plunger, Complete....."	1.00	Price to be deducted or added for each ft. from 3 ft.	.15
" Top with Packings..."	.60	Discharge Pipe, 3 feet.....each	.60
" Bottom....."	.15	Price to be deducted or added for each ft. from 3 ft.	.10
" Locknut....."	.10	Operating Screw.....each	.75
Valve Disc....."	.05	Case or Top....."	.75
Screw and Washer....."	.05	Cover only....."	.35
Mal. Plunger Rod Coup....."	.10	" Pin....."	.05
Case Guard, Complete....."	.35	Screw Plate....."	.15
" " Right or Left....."	.15	" " Screws....."	.05
" " Bolts....."	.05	Hose Nipple....."	.25
Handle....."	.10	Plunger Rod, 3 feet....."	.25
Operating Screw....."	1.00	Price to be deducted or added for each ft. from 3 ft.	.05
Spring Cotter....."	.05	Dry Pipe, 3 feet.....each	.50
Stk. or Std. Complete....."	1.50	Price to be deducted or added for each ft. from 3 ft.	.15
" " " Right or Left....."	.75	Discharge Pipe, 3 feet.....each	.50
" " " Bolts....."	.05	Price to be deducted or added for each ft. from 3 ft.	.10
Screw Cap....."	.15	Key.....each	.15
" " " Bolts....."	.05	.....	.....

FIRE HYDRANTS

No. 1
Total Eclipse

Fig. 6433A

No. 3
Eclipse

Fig. 6433B

No. 2 Eclipse for
Private Corporations

1 1/4-inch



Fig. 6433C

2-inch



Fig. 6433D

No. 1 TOTAL ECLIPSE FIRE HYDRANTS

The $\frac{3}{4}$ -inch hydrant and street washer has combination inlet for $\frac{3}{4}$ or $\frac{1}{2}$ -inch pipe; 1-inch for 1 or $\frac{3}{4}$ -inch, and $1\frac{1}{4}$ -inch for $1\frac{1}{4}$ or 1-inch.

Size In.	Length Feet	Price Each									
$\frac{3}{4}$	$1\frac{1}{2}$	9.80	$\frac{3}{4}$	2	10.10	$\frac{3}{4}$	3	10.60	$\frac{3}{4}$	4	11.00
1	$1\frac{1}{2}$	12.70	1	2	13.50	1	3	14.30	1	4	14.75
$1\frac{1}{4}$	$1\frac{1}{2}$	19.70	$1\frac{1}{4}$	2	20.50	$1\frac{1}{4}$	3	21.80	$1\frac{1}{4}$	4	22.25

No. 3 ECLIPSE FIRE HYDRANTS

Pave- ment Diam. Inches	ment to Inlet Center of Inlet Pipe. Feet	One Hose Nozzle	Two Hose Nozzles	Three Hose Nozzles	One Steamer Nozzle	One Steamer and Two Nozzles	Frost Case Standard Length	Each Ft. in Length of Stand- pipe Extra	Each Ft. in Length of Frost Case Extra	
3	5	32.00	34.00	36.00	34.00	36.00	38.00	7.00	1.50	1.00
4	5	32.00	34.00	36.00	34.00	36.00	38.00	7.00	1.50	1.00
5	5	34.00	36.00	38.00	36.00	38.00	40.00	7.00	1.50	1.00
6	5	34.00	36.00	38.00	36.00	38.00	40.00	7.00	1.50	1.00

No. 2 ECLIPSE FIRE HYDRANTS

FOR PRIVATE CORPORATIONS

Size In.	Length Feet	Price Each	Size In.	Length Feet	Price Each	Size In.	Length Feet	Price Each
$1\frac{1}{4}$	$1\frac{1}{2}$	11.85	$1\frac{1}{4}$	2	12.00	$1\frac{1}{4}$	3	12.30
$1\frac{1}{2}$	$1\frac{1}{2}$	16.30	$1\frac{1}{2}$	2	16.45	$1\frac{1}{2}$	3	16.80
2	$1\frac{1}{2}$	22.25	2	2	22.50	2	3	23.00

**STANDARD STEAM, GAS AND WATER PIPE
BLACK AND GALVANIZED**



Fig. 1A

AS ADOPTED JANUARY 1, 1913

ALL WEIGHTS AND DIMENSIONS ARE NOMINAL

Size Inches	Price per Foot	Diameter, Inches External	Diameter, Inches Internal	Thickness Inches	Wt., per Ft., Pounds Plain Ends	Wt., per Ft., Pounds Threaded and Coupled	No. of Threads per Inch
1/8	.05 1/2	.405	.269	.068	.244	.245	27
3/16	.06	.540	.364	.088	.424	.425	18
5/32	.06	.675	.493	.091	.567	.568	18
1/2	.08 1/2	.840	.622	.109	.850	.852	14
3/4	.11 1/2	1.050	.824	.113	1.130	1.134	14
1	.17	1.315	1.049	.133	1.678	1.684	11 1/2
1 1/4	.23	1.660	1.380	.140	2.272	2.281	11 1/2
1 1/2	.27 1/2	1.900	1.610	.145	2.717	2.731	11 1/2
2	.37	2.375	2.067	.154	3.652	3.678	11 1/2
2 1/2	.58 1/2	2.875	2.469	.203	5.793	5.819	8
3	.76 1/2	3.500	3.068	.216	7.575	7.616	8
3 1/2	.92	4.	3.548	.226	9.109	9.202	8
4	1.09	4.500	4.026	.237	10.790	10.889	8
4 1/2	1.27	5.	4.506	.247	12.538	12.642	8
5	1.48	5.563	5.047	.258	14.617	14.810	8
6	1.92	6.625	6.065	.280	18.974	19.185	8
7	2.38	7.625	7.023	.301	23.544	23.769	8
8	2.50	8.625	8.071	.277	24.696	25.	8
8	2.88	8.625	7.981	.322	28.554	28.809	8
9	3.45	9.625	8.941	.342	33.907	34.188	8
10	3.20	10.750	10.192	.279	31.201	32.	8
10	3.50	10.750	10.136	.307	34.240	35.	8
10	4.12	10.750	10.020	.365	40.483	41.132	8
11	4.63	11.750	11.	.375	45.557	46.247	8
12	4.50	12.750	12.090	.330	43.773	45.	8
12	5.07	12.750	12.	.375	49.562	50.706	8
13	5.60	14.	13.250	.375	54.568	55.824	8
14	6.10	15.	14.250	.375	58.573	60.375	8
15	6.50	16.	15.250	.375	62.579	64.500	8

The permissible variation in weight is 5 per cent above and 5 per cent below.

Furnished with threads and coupling and in random lengths, unless otherwise ordered.

For cut lengths, an extra charge will be made above random lengths.

For pipe smoothed on the inside, known as reamed and drifted, an extra charge will be made above standard pipe.

For galvanized or coated pipe, an extra charge will be made above black.

STEAM, GAS AND WATER PIPE
BLACK AND GALVANIZED

ADOPTED JANUARY 1, 1919
 ALL WEIGHTS AND DIMENSIONS ARE NOMINAL

EXTRA STRONG

Size Inches	DIAMETER External Inches	Internal Inches	Thickness Inches	Weight per Foot Plain Ends Pounds	Price per Foot
1/8	.405	.215	.095	.314	.12
3/16	.540	.302	.119	.535	.071/2
5/32	.675	.423	.126	.738	.071/2
1/2	.840	.546	.147	1.087	.11
3/4	1.050	.742	.154	1.473	.15
1	1.315	.957	.179	2.171	.22
1 1/4	1.660	1.278	.191	2.996	.30
1 1/2	1.900	1.500	.200	3.631	.361/2
2	2.375	1.939	.218	5.022	.501/2
2 1/2	2.875	2.323	.276	7.661	.77
3	3.500	2.900	.300	10.252	1.03
3 1/2	4	3.364	.318	12.505	1.25
4	4.500	3.826	.337	14.983	1.50
4 1/2	5	4.290	.355	17.611	1.80
5	5.563	4.813	.375	20.778	2.08
6	6.625	5.761	.432	28.573	2.86
7	7.625	6.625	.500	38.048	3.81
8	8.625	7.625	.500	43.388	4.34
9	9.625	8.625	.500	48.728	4.90
10	10.750	9.750	.500	54.735	5.48
11	11.750	10.750	.500	60.075	6.10
12	12.750	11.750	.500	65.415	6.55

The permissible variation in weight is 5 per cent above and 5 per cent below.

DOUBLE EXTRA STRONG

Size Inches	DIAMETER, INCHES External	Internal	Thickness Inches	Weight per Foot Plain Ends Pounds	Price per Foot
1/2	.840	.252	.294	1.714	.32
3/4	1.050	.434	.308	2.440	.35
1	1.315	.599	.358	3.659	.37
1 1/4	1.660	.896	.382	5.214	.521/2
1 1/2	1.900	1.100	.400	6.408	.65
2	2.375	1.503	.436	9.029	.91
2 1/2	2.875	1.771	.552	13.695	1.37
3	3.500	2.300	.600	18.583	1.86
3 1/2	4	2.728	.636	22.850	2.30
4	4.500	3.152	.674	27.541	2.76
4 1/2	5	3.580	.710	32.530	3.26
5	5.563	4.063	.750	38.552	3.86
6	6.625	4.897	.864	53.160	5.32
7	7.625	5.875	.875	63.079	6.35
8	8.625	6.875	.875	72.424	7.25

The permissible variation in weight is 10 per cent above and 10 per cent below.

The following notes apply to both tables:

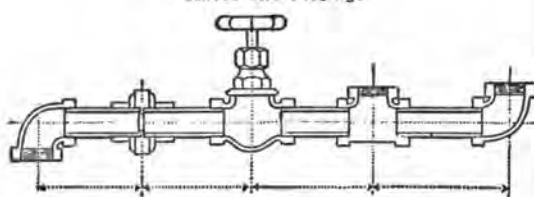
Furnished with plain ends and in random lengths, unless otherwise ordered.

Random length of extra strong and double extra strong pipe is considered to be 12 feet to 22 feet, we to have the privilege, however, of supplying not exceeding 5 per cent of total order in lengths from 6 to 12 feet.

For pipe fitted with threads and couplings; for cut lengths, or galvanized or coated pipe, an extra charge will be made.

PIPE CUTTING AND THREADING

**Diagram Showing Screwed
Valves and Fittings**



pressure required to stand. Too much care cannot be exercised in making these measurements.

Give all measurements from center to center. It is advisable, though not necessary to state the purpose for which the pipe is to be used and the pressure it must withstand.

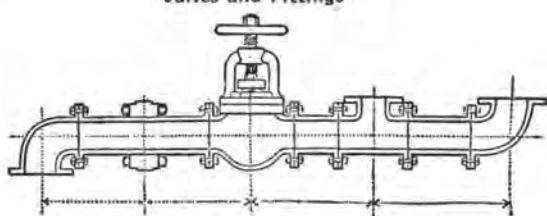
If flanged fittings are to be used, state if desired drilled, and if with bolts and gaskets complete. Flanges, flanged fittings and valves are drilled in multiples of four, so that they may be made to place in any quarter, and bolts straddle the center line. It is always most advisable to send templates when drilling of valves or fittings is required.

We are in a position to furnish quickly pipe cutting, threading and fitting all sizes of pipe to order.

In laying out work of this kind, great care should be taken in making sketches.

All measurements should be given center to center as shown in diagrams. It is also necessary to know for what purpose the pipe is to be used and

**Diagram Showing Flanged
Valves and Fittings**



CUTTING STANDARD PIPE THREADS

Size.....	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price.....	each	.06	.06	.06	.06	.06	.06	.08	.10	.14
Size.....	inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8
Price.....	each	.20	.30	.40	.40	.50	.60	.90	1.10	1.20
Size.....	inches	9	10	12	14 0.0.	15 0.0.	16 0.0.	18 0.0.	....	....
Price.....	each	2.00	2.50	3.50	6.50	7.50	10.00	20.00	....	....

CUTTING PIPE, NO THREADS

Size.....	inches	$\frac{1}{8}$ to 1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price.....	each	.04	.06	.08	.10	.14	.20	.27	.27
Size.....	inches	$4\frac{1}{2}$	5	6	7	8	9	10	12
Price.....	each	.34	.40	.54	.67	.80	1.34	1.67	2.34

MAKING UP FLANGES AND FITTINGS

Size.....	inches	$\frac{1}{8}$ to $1\frac{1}{2}$	2 to $2\frac{1}{2}$	3	$3\frac{1}{2}$ to 4	$4\frac{1}{2}$	5 to 6
Price.....	each	.10	.20	.30	.40	.50	.60
Size.....	inches	7 to 8	9 to 10	12	14-15 0.0.	16 0.0.	18 0.0.
Price.....	each	1.00	1.30	1.50	2.00	2.50	4.00

THREAD PROTECTORS

Size.....	inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Price.....	each	.14	.20	.30	.40	.50	.75	.83	1.20	1.63	2.13	2.75	3.75	5.00

PIPE BENDS

MADE FROM LAP WELDED PIPE

We are in a position to furnish bent and finished flanged pipe in all sizes, and can furnish bends in full weight, extra strong or double extra strong wrought pipe, equipped with screwed, Van Stone or steel weld flanges in standard, extra heavy or hydraulic dimensions. These flanges can be made of cast iron, ferrosteel, malleable iron, cast steel or forged steel.

Where bends are used to take care of expansion and contraction movements, the flanges should be extra heavy cast steel or forged steel or malleable iron to provide sufficient strength for the strains.

The thickness of the wall of the pipe in a bend should be determined by the pressure under which the bend is to be operated and the diameter of the pipe. We will be pleased to give our recommendations for any particular service. The thicknesses given in the table below are the lightest we recommend and carry a sufficient safety factor, taking into consideration the scaling of pipe in the bending fire and thinning of wall due to stretching during the bending process.

THICKNESS OF PIPE FOR VARIOUS BENDS

UP TO 125 POUNDS WORKING PRESSURE

Radius	Pipe Size	Pipe
4 to 5 Diameters.....	7 Inches and Smaller.....	Extra Strong
	8 " " Larger.....	1/2 Inch Thick
Over 5 Diameters.....	7 " " Smaller.....	Full Weight
	8 "	28.55 Pounds per Foot
	10 "	40.48 " " "
	12 "	49.56 " " "
	14 " to 16 Inches, Inclusive.....	5/16 Inch Thick
	18 " 22 " " "	3/8 " " "
	24 " 30 " " "	7/16 " " "

125 POUNDS TO 250 POUNDS WORKING PRESSURE

4 to 5 and 6 Diameters....	7 Inches and Smaller.....	Extra Strong
	8 " " Larger.....	1/2 Inch Thick
Over 6 Diameters.....	7 " " Smaller.....	Full Weight
	8 "	28.55 Pounds per Foot
	10 "	40.48 " " "
	12 "	49.56 " " "
	14 " to 16 Inches, Inclusive.....	3/8 Inch Thick
	18 " 22 " " "	7/16 " " "
	24 " 30 " " "	1/2 " " "

250 POUNDS TO 350 POUNDS WORKING PRESSURE

4 Diameters and Over.....	7 Inches and Smaller.....	Extra Strong
	8 " " Larger.....	1/2 Inch Thick

By use of special machinery for threading and flanging, we are enabled to furnish work that is absolutely correct. These bends are exact to the number of degrees ordered, and the flanges are made on at 90 degrees to the axis of the pipe in the tangent, so that it is not necessary to force the bend into place and bolt it up in the line under an angular strain.

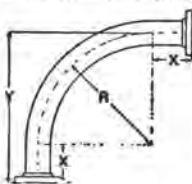
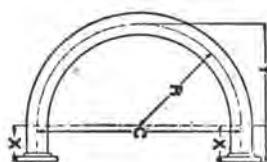
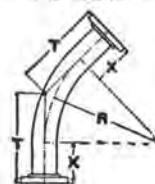
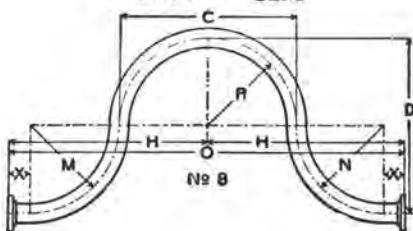
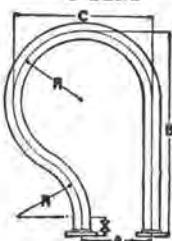
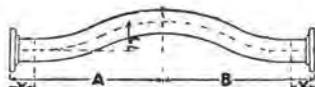
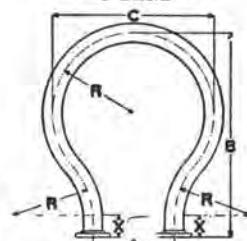
Every bend is carefully tested under hydraulic pressure before shipment. In the table above we give the shortest recommended radii and tangents for different sizes of full weight and extra strong pipe; but wherever possible, these radii should be increased to allowable limits, as a short radius bend is not as flexible as one built with a longer radius. In addition it is more difficult to avoid buckles where the pipe is bent to a short radius. Five to six diameters of the pipe make a safe radius.

SPECIFICATIONS FOR BENDS

A request for an estimate, or an order for bends should be accompanied by a sketch or blue print showing all the necessary dimensions. In addition we should be furnished with information relative to the thickness of pipe desired in the bend and the type of flanges to be furnished.

PIPE BENDS

MADE FROM LAP WELDED STEEL PIPE

QUARTER BEND**U BEND****45° BEND****EXPANSION T BEND****SINGLE OFFSET U BEND****CROSS-OVER****DOUBLE OFFSET U BEND**

We are prepared to bend large pipe in any desired form within the following limits:

The radius of any bend should not be less than five diameters of the pipe, and a larger radius is much preferable. The length "X" of straight pipe at each end of bend should be not less than as follows:

2½-inch Pipe X = 4 inches.
3 -inch Pipe X = 4 inches.
3½-inch Pipe X = 5 inches.
4 -inch Pipe X = 5 inches.
4½-inch Pipe X = 6 inches.
5 -inch Pipe X = 6 inches.
6 -inch Pipe X = 7 inches.
7 -inch Pipe X = 8 inches.
8 -inch Pipe X = 9 inches.

9-inch Pipe X = 11 inches.
10-inch Pipe X = 12 inches.
12-inch Pipe X = 14 inches.
14-inch Pipe X = 16 inches.
15-inch Pipe X = 16 inches.
16-inch Pipe X = 18 inches.
18-inch Pipe X = 18 inches.
20-inch Pipe X = 18 inches.
22-inch Pipe X = 18 inches.

24-inch Pipe X = 18 inches.

WROUGHT IRON PIPE COLUMNS



Fig. 19274A

Cheaper than brick piers and take up only one tenth as much room. They have gained much favor in the building of porches, platforms, the support of partitions, etc.

Wrought iron pipe columns made from standard or extra heavy wrought iron pipe, can be furnished to order on short notice.

STANDARD WROUGHT IRON PIPE

Inside Diameter.....	.....inches	2	2½	3	3½	4
Outside ".....	"	2.37	2.87	3.50	4.00	4.50
Area in Metal.....		1.27	1.56	2.55	2.95	3.33
Safe Load in pounds.....	6 feet	10300	13500	23000	27300	31300
" " " "	8 "	9000	12200	21300	25800	29900
" " " "	10 "	7700	10800	19600	24100	28300
" " " "	12 "	6500	9500	17700	22300	26600
Inside Diameter.....	.....inches	5	6	7	8	...
Outside ".....	"	5.56	6.62	7.60	8.65	...
Area in Metal.....		4.65	6.14	6.89	8.50	...
Safe Load in pounds.....	6 feet	44700	59600	67300	83600	...
" " " "	8 "	43300	58400	66200	82400	...
" " " "	10 "	41800	56800	64900	81300	...
" " " "	12 "	40000	55000	63400	79700	...

EXTRA HEAVY WROUGHT IRON PIPE

Inside Diameter.....	.....inches	2	2½	3	3½
Outside ".....	"	2.37	2.87	3.50	4.00
Area of Metal.....		1.45	2.24	3.06	3.76
Safe Load in pounds.....	6 feet	11700	19200	27500	34600
" " " "	8 "	10100	17200	25500	32700
" " " "	10 "	8700	15200	23400	30400
" " " "	12 "	7300	13300	21200	28000
Inside Diameter.....	.....inches	4	5	6	...
Outside ".....	"	4.50	5.56	6.62	...
Area of Metal.....		4.44	6.11	8.42	...
Safe Load in pounds.....	6 feet	41600	58600	82000	...
" " " "	8 "	39700	56800	80200	...
" " " "	10 "	37500	54600	77900	...
" " " "	12 "	35200	52200	75400	...

LAP WELDED CASING**FOR WATER, WELL AND IRRIGATION PURPOSES****Screw and Socket Joint**

Fig. 3525A

Inserted Joint

Fig. 3525B

ADOPTED JANUARY 1, 1913

ALL WEIGHTS AND DIMENSIONS ARE NOMINAL

Size Inches	Price per Foot	DIAMETER, INCHES		Thickness Inches	Number of Threads per Inch	WEIGHT, PER FOOT, POUNDS	
		External	Internal			Plain Ends	Threads and Couplings
2	.33	2.250	2.050	.100	14	2.296	2.340
2 $\frac{1}{4}$	.33	2.500	2.284	.108	14	2.759	2.820
2 $\frac{1}{2}$	.33	2.750	2.524	.113	14	3.182	3.250
2 $\frac{3}{4}$	.40	3.	2.768	.116	14	3.572	3.650
3	.41	3.250	3.010	.120	14	4.011	4.100
3 $\frac{1}{4}$	.46	3.500	3.250	.125	14	4.505	4.600
3 $\frac{1}{2}$	.51	3.750	3.492	.129	14	4.988	5.100
3 $\frac{3}{4}$	.56 $\frac{1}{2}$	4.	3.732	.134	14	5.532	5.650
4	.62	4.250	3.974	.138	14	6.060	6.200
4 $\frac{1}{4}$	.68 $\frac{1}{2}$	4.500	4.216	.142	14	6.609	6.750
4 $\frac{1}{2}$	.74	4.750	4.460	.145	14	7.131	7.250
4 $\frac{3}{4}$	.81	5.	4.696	.152	14	7.870	8.000
5	.85	5.250	4.944	.153	14	8.328	8.500
5 $\frac{3}{8}$	.90	5.500	5.192	.154	14	8.792	9.000
5 $\frac{5}{8}$	1.05	6.	5.672	.164	14	10.222	10.500
6 $\frac{1}{4}$	1.20	6.625	6.287	.169	14	11.652	12.000
6 $\frac{3}{8}$	1.35	7.	6.652	.174	14	12.685	13.000
7 $\frac{1}{4}$	1.48	7.625	7.263	.181	14	14.390	14.750
7 $\frac{5}{8}$	1.60	8.	7.628	.186	11 $\frac{1}{2}$	15.522	16.000
8 $\frac{1}{4}$	1.75	8.625	8.249	.188	11 $\frac{1}{2}$	16.940	17.500
8 $\frac{5}{8}$	1.90	9.	8.608	.196	11 $\frac{1}{2}$	18.429	19.000
9 $\frac{3}{8}$	2.28	10.	9.582	.209	11 $\frac{1}{2}$	21.855	22.750
10 $\frac{5}{8}$	2.68	11.	10.552	.224	11 $\frac{1}{2}$	25.780	26.750
11 $\frac{3}{8}$	3.15	12.	11.514	.243	11 $\frac{1}{2}$	30.512	31.500
12 $\frac{1}{2}$	3.65	13.	12.482	.259	11 $\frac{1}{2}$	35.243	36.500
13 $\frac{1}{2}$	4.20	14.	13.448	.276	11 $\frac{1}{2}$	40.454	42.000
14 $\frac{1}{2}$	4.75	15.	14.418	.291	11 $\frac{1}{2}$	45.714	47.500
15 $\frac{1}{2}$	5.25	16.	15.396	.302	11 $\frac{1}{2}$	50.632	52.500

The permissible variation in weight is 5 per cent above and 5 per cent below.

Screw and socket furnished with threads and couplings and in random lengths unless otherwise ordered.

Inserted joint furnished threaded and in random lengths, unless otherwise ordered.

Thickness of walls makes it impracticable to cut threads of coarser pitch than shown on table.

For cut lengths, an extra charge will be made above random.

For galvanized or coated casing, an extra charge will be made above black.

CASING

FOR OIL AND GAS—ADOPTED JAN. 1, 1913
ALL WEIGHTS AND DIMENSIONS ARE NOMINAL

Size Inches	DIAMETER, INCHES		Thickness Inches	WEIGHT, PER FOOT, POUNDS		No. of Threads per Inch
	External	Internal		Plain Ends	Threads and Couplings	
4 $\frac{1}{4}$	4.500	4.216	.142	6.609	6.750	14
4 $\frac{1}{4}$	4.500	4.090	.205	9.403	9.500	14
4 $\frac{1}{2}$	4.750	4.460	.145	7.131	7.250	14
4 $\frac{1}{2}$	4.750	4.364	.193	9.393	9.500	14
4 $\frac{3}{4}$	5.000	4.696	.152	7.870	8.000	14
5	5.250	4.944	.153	8.328	8.500	14
5	5.250	4.886	.182	9.851	10.000	14
5	5.250	4.886	.182	9.851	10.000	11 $\frac{1}{2}$
5	5.250	4.768	.241	12.892	13.000	11 $\frac{1}{2}$
5	5.250	4.648	.301	15.909	16.000	11 $\frac{1}{2}$
5 $\frac{3}{16}$	5.500	5.192	.154	8.792	9.000	14
*5 $\frac{3}{16}$	5.500	5.044	.228	12.837	13.000	11 $\frac{1}{2}$
*5 $\frac{3}{16}$	5.500	4.892	.304	16.870	17.000	11 $\frac{1}{2}$
5 $\frac{5}{8}$	6.000	5.672	.164	10.222	10.500	14
5 $\frac{5}{8}$	6.000	5.620	.190	11.789	12.000	11 $\frac{1}{2}$
5 $\frac{5}{8}$	6.000	5.552	.224	13.818	14.000	14 $\frac{1}{2}$
5 $\frac{5}{8}$	6.000	5.450	.275	16.814	17.000	11 $\frac{1}{2}$
6 $\frac{1}{4}$	6.625	6.287	.169	11.652	12.000	14
6 $\frac{1}{4}$	6.625	6.255	.185	12.724	13.000	14
*6 $\frac{1}{4}$	6.625	6.257	.184	12.657	13.000	11 $\frac{1}{2}$
*6 $\frac{1}{4}$	6.625	6.135	.245	16.694	17.000	11 $\frac{1}{2}$
*6 $\frac{1}{4}$	6.625	6.041	.292	19.750	20.000	11 $\frac{1}{2}$
*6 $\frac{1}{4}$	6.625	5.913	.356	23.835	24.000	11 $\frac{1}{2}$
6 $\frac{5}{8}$	7.000	6.652	.174	12.685	13.000	14
6 $\frac{5}{8}$	7.000	6.538	.231	16.699	17.000	11 $\frac{1}{2}$
*6 $\frac{5}{8}$	7.000	6.538	.231	16.699	17.000	10
*6 $\frac{5}{8}$	7.000	6.450	.275	19.751	20.000	10
*6 $\frac{5}{8}$	7.000	6.334	.333	23.711	24.000	10
7 $\frac{1}{4}$	7.625	7.263	.181	14.390	14.750	14
7 $\frac{5}{8}$	8.000	7.628	.186	15.522	16.000	11 $\frac{1}{2}$
7 $\frac{5}{8}$	8.000	7.528	.236	19.569	20.000	11 $\frac{1}{2}$
8 $\frac{1}{4}$	8.625	8.249	.188	16.940	17.500	11 $\frac{1}{2}$
8 $\frac{1}{4}$	8.625	8.191	.217	19.486	20.000	11 $\frac{1}{2}$
8 $\frac{1}{4}$	8.625	8.097	.264	23.574	24.000	11 $\frac{1}{2}$
*8 $\frac{1}{4}$	8.625	8.097	.264	23.574	24.000	8
*8 $\frac{1}{4}$	8.625	8.003	.311	27.615	28.000	8
*8 $\frac{1}{4}$	8.625	7.907	.359	31.693	32.000	8
8 $\frac{5}{8}$	9.000	8.608	.196	18.429	19.000	11 $\frac{1}{2}$
9 $\frac{5}{8}$	10.000	9.582	.209	21.855	22.750	11 $\frac{1}{2}$
9 $\frac{5}{8}$	10.000	9.434	.283	29.369	30.250	11 $\frac{1}{2}$
*10	10.750	10.192	.279	31.201	32.515	8
10	10.750	10.146	.302	33.699	35.000	8
*10	10.750	10.050	.350	38.875	40.000	8
10 $\frac{5}{8}$	11.000	10.552	.224	25.780	26.750	11 $\frac{1}{2}$
11 $\frac{5}{8}$	12.000	11.514	.243	30.512	31.500	11 $\frac{1}{2}$
12 $\frac{1}{2}$	13.000	12.482	.259	35.243	36.500	11 $\frac{1}{2}$
*12 $\frac{1}{2}$	13.000	12.356	.322	43.599	45.000	8
*12 $\frac{1}{2}$	13.000	12.278	.361	48.730	50.000	8
13 $\frac{1}{2}$	14.000	13.448	.276	40.454	42.000	11 $\frac{1}{2}$
14 $\frac{1}{2}$	15.000	14.418	.291	45.714	47.500	11 $\frac{1}{2}$
15 $\frac{1}{2}$	16.000	15.396	.302	50.632	52.500	11 $\frac{1}{2}$

*These items are fitted with South Penn Couplings.

Permissible variation in weight is five per cent above and below. Furnished random lengths, threaded and coupled unless otherwise ordered. Extra charge for cut lengths or galvanized. Prices upon application.

BOILER TUBES
LAP WELDED STEEL, CHARCOAL IRON
SEAMLESS STEEL



Fig. 29590A

				PRICE, PER FOOT				
STANDARD THICKNESS				One	Two	Three	Four	
External Diam.	Birmingham Wire Gauge	Inches	Standard Thickness	Extra Wire Gauge	Extra Wire Gauge	Extra Wire Gauges	Extra Wire Gauges	
1 3/4	13	.095	.22	.26	.28	.31	.34	
2	13	.095	.21	.24	.26	.28	.31	
2 1/4	13	.095	.24	.27	.29	.32	.35	
2 1/2	12	.109	.30	.33	.36	.39	.43	
2 3/4	12	.109	.34	.37	.40	.44	.48	
3	12	.109	.38	.41	.45	.49	.54	
3 1/4	11	.120	.45	.49	.53	.59	.63	
3 1/2	11	.120	.48	.53	.58	.64	.69	
3 3/4	11	.120	.52	.57	.62	.68	.74	
4	10	.134	.61	.66	.73	.79	.88	
4 1/2	10	.134	.69	.75	.83	.89	.99	
5	9	.148	.81	.90	.97	1.08	1.17	
6	8	.165	1.08	1.17	1.31	1.41	1.52	
7	8	.165	1.27	1.38	1.54	1.66	1.78	
8	8	.165	1.45	1.58	1.76	1.90	2.05	

				NOMINAL WEIGHT PER FOOT, POUNDS FOR ESTIMATING PURPOSES				
STANDARD THICKNESS				One	Two	Three	Four	
External Diam.	Birmingham Wire Gauge	Inches	Standard Thickness	Extra Wire Gauge	Extra Wire Gauge	Extra Wire Gauges	Extra Wire Gauges	
1 3/4	13	.095	1.84	2.07	2.24	2.46	2.68	
2	13	.095	2.10	2.37	2.57	2.83	3.09	
2 1/4	13	.095	2.38	2.68	2.92	3.21	3.50	
2 1/2	12	.109	3.00	3.26	3.59	3.92	4.32	
2 3/4	12	.109	3.37	3.66	4.03	4.39	4.83	
3	12	.109	3.74	4.07	4.47	4.88	5.36	
3 1/4	11	.120	4.45	4.90	5.34	5.87	6.33	
3	11	.120	4.81	5.29	5.77	6.34	6.84	
3 3/4	11	.120	5.17	5.69	6.20	6.82	7.36	
4	10	.134	6.08	6.64	7.30	7.88	8.76	
4 1/2	10	.134	6.87	7.50	8.26	8.92	9.92	
5	9	.148	8.12	8.96	9.71	10.8	11.6	
6	8	.165	10.8	11.7	13.1	14.1	15.1	
7	8	.165	12.6	13.7	15.3	16.5	17.8	
8	8	.165	14.5	15.7	17.6	19.0	20.4	

These tubes are manufactured according to A. S. M. E. standards which specify that no tube shall measure at any point lighter than the gauge specified.

Tubes larger than 8-inch diameter, prices furnished upon application.

Quotations furnished on bent tubes on receipt of specification.

NIPPLES

CLOSE NIPPLE



Fig. 45A

SHOULDER NIPPLE



Fig. 45B

BLACK RIGHT-HAND NIPPLES

LENGTH, INCHES			Size Inches	Price, Each	PRICE, EXTRA LONG NIPPLES, EACH									
Close	Short	LONG			4	5	6	7	8	9	10	11	12	
3/4	1 1/2	2	2 1/2	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
7/8	1 1/2	2	2 1/2	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
1	1 1/2	2	2 1/2	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
1 1/8	1 1/2	2	2 1/2	.05	.07	.08	.10	.12	.14	.16	.18	.20	.22	.23
1 1/8	2	2 1/2	3	.06	.09	...	.11	.13	.17	.18	.20	.22	.24	.26
1 1/2	2	2 1/2	3	.06	.09	...	.11	.13	.17	.18	.20	.22	.24	.26
1 1/2	2	2 1/2	3	.08	.13	...	.15	.18	.23	.25	.28	.31	.34	.36
1 5/8	2 1/2	3	3 1/2	.11	.17	...	.20	.24	.29	.33	.36	.40	.44	.47
1 3/4	2 1/2	3	3 1/2	.13	.20	...	.25	.29	.36	.40	.45	.50	.54	.59
2	2 1/2	3	3 1/2	.18	.27	...	.32	.38	.50	.54	.59	.65	.72	.77
2 1/2	3	3 1/2	4	.39	.59	...	.68	.90	.97	1.06	1.17	1.26	1.35	
2 5/8	3	3 1/2	4	.48	.72	...	.85	1.08	1.20	1.33	1.45	1.58	1.70	
2 3/4	4	4 1/2	5	.75	1.05	...	...	1.30	1.45	1.60	1.75	1.90	2.05	
2 7/8	4	4 1/2	5	.85	1.20	...	...	1.52	1.69	1.87	2.05	2.22	2.40	
2 7/8	4	4 1/2	5	1.25	1.70	...	...	2.25	2.50	2.75	2.95	3.17	3.40	
3	4 1/2	5	5 1/2	5	1.55	2.45	...	2.58	2.83	3.10	3.35	3.60	3.85	
3 1/8	4 1/2	5	5 1/2	6	1.85	2.90	...	3.05	3.35	3.70	4.00	4.30	4.65	
3 1/4	5	...	...	7	3.20	...	3.60	4.05	4.45	4.90	5.30	5.75	6.15	
3 1/2	5	...	...	8	3.55	...	4.05	4.55	5.05	5.50	6.00	6.50	7.00	
3 5/8	5	...	...	9	5.25	...	...	6.50	7.10	7.75	8.40	9.00		
3 7/8	5	...	...	10	6.75	...	...	8.25	8.90	9.70	10.40	11.15		
4 1/2	5	...	...	12	8.00	...	10.00	10.80	11.75	12.70	13.65			

Nipples made to order from extra heavy pipe at double above list. Nipples larger than 12 inches made to order and charged as cut pipe. Threads extra.

NIPPLES

PLAIN RIGHT AND LEFT-HAND NIPPLES

#Close	Length, Inches	Size, Inches	Price, Ea.	Price, Extra Long Nipples, Each														
				Close or Short	Long	4	5	6	7	8	9	10	11	12				
3/4	1 1/2	2	2 1/2	3	3 1/2	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
7/8	1 1/2	2	2 1/2	3	3 1/2	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
1	1 1/2	2	2 1/2	3	3 1/2	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
1 1/8	1 1/2	2	2 1/2	3	3 1/2	.07	.10	.11	.13	.16	.18	.21	.24	.27	.29	.31		
13/16	2	2 1/2	3	3 1/2	4	.08	.12	...	.15	.17	.23	.25	.27	.29	.32	.35	
11/2	2	2 1/2	3	3 1/2	4	1	.11	.18	...	.20	.24	.31	.33	.37	.41	.45	.48
15/16	2	2 1/2	3	3 1/2	4	4 1/2	.15	.23	...	.27	.32	.39	.45	.50	.55	.60	.65
13/4	2	2 1/2	3	3 1/2	4	4 1/2	1 1/2	.18	.2734	.39	.48	.52	.60	.67	.72	.80
2	2 1/2	3	3 1/2	4	4 1/2	2	.24	.36	...	.43	.51	.67	.72	.80	.87	.96	1.03
21/2	3	3 1/2	4	4 1/2	5	2 1/2	.52	.79	...	.91	1.20	1.30	1.40	1.55	1.68	1.80	
25/32	3	3 1/2	4	4 1/2	5	3	.65	.96	...	1.13	1.44	1.60	1.77	1.93	2.10	2.27		
23/4	4	4 1/2	5	5 1/2	6	3 1/2	1.00	1.40	...	...	1.75	1.95	2.15	2.35	2.55	2.75	
27/8	4	4 1/2	5	5 1/2	6	4	1.15	1.60	...	...	2.00	2.25	2.50	2.75	3.00	3.25	

*These lengths conform to the Manufacturers' Standard.

Add 60 per cent to above prices for galvanized right and left nipples.

GALVANIZED RIGHT-HAND NIPPLES

#Close	Length, Inches	Size, Inches	Price, Ea.	Price, Extra Long Nipples, Each														
				Close or Short	Long	4	5	6	7	8	9	10	11	12				
3/4	1 1/2	2	2 1/2	3	3 1/2	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
7/8	1 1/2	2	2 1/2	3	3 1/2	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
1	1 1/2	2	2 1/2	3	3 1/2	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
1 1/8	1 1/2	2	2 1/2	3	3 1/2	.06	.11	.13	.16	.18	.23	.26	.28	.31	.33	.36		
13/16	2	2 1/2	3	3 1/2	4	.08	.14	...	.18	.21	.26	.29	.32	.35	.38	.41	
1 1/2	2	2 1/2	3	3 1/2	4	1	.11	.19	...	.24	.28	.34	.38	.42	.47	.51	.55
15/16	2	2 1/2	3	3 1/2	4	4 1/2	.17	.29	...	.32	.38	.45	.51	.57	.63	.69	.75
13/4	2	2 1/2	3	3 1/2	4	4 1/2	1 1/2	.21	.3539	.46	.55	.63	.70	.77	.84	.91
2	2 1/2	3	3 1/2	4	4 1/2	2	.27	.47	...	.52	.61	.74	.83	.93	1.03	1.13	1.23
21/2	3	3 1/2	4	4 1/2	5	2 1/2	.56	.86	...	1.00	1.26	1.41	1.56	1.71	1.86	2.01		
25/32	3	3 1/2	4	4 1/2	5	3	.70	1.10	...	1.30	1.60	1.80	2.00	2.20	2.40	2.60		
23/4	4	4 1/2	5	5 1/2	6	3 1/2	1.20	1.70	...	...	2.10	2.35	2.60	2.85	3.15	3.40	
27/8	4	4 1/2	5	5 1/2	6	4	1.35	1.87	...	...	2.30	2.60	2.90	3.20	3.50	3.80	
27/8	4	4 1/2	5	5 1/2	6	4 1/2	1.85	2.60	...	...	3.30	3.65	4.05	4.45	4.85	5.25	
3	4 1/2	5	5 1/2	6	6 1/2	5	2.30	3.15	...	...	3.75	4.20	4.60	5.00	5.40	5.85	
31/8	4 1/2	5	5 1/2	6	6 1/2	6	2.80	4.25	...	...	4.50	5.00	5.55	6.05	6.60	7.15	
31/4	5	...	...	...	7	4.25	...	...	...	4.95	5.65	6.35	7.05	7.75	8.45	9.20	
31/2	5	...	...	...	8	5.00	...	...	...	5.80	6.65	7.50	8.35	9.25	10.10	10.95	

*These lengths conform to the Manufacturers' Standard.

Nipples made to order from galvanized extra heavy pipe at double above list.

WROUGHT FITTINGS, ETC.

WROUGHT COUPLINGS

LONG SCREW



Fig. 10084A



Fig. 10084B

LONG SCREWS WITH COUPLING AND LOCKNUT FACED

Size.....	inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Standard Length.....	inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8	$8\frac{1}{2}$	9
Black.....	each	.30	.35	.40	.55	.75	1.00	1.30	1.70	2.70	3.70	5.40	6.60
Galvanized.....	"	.35	.40	.50	.66	1.00	1.25	1.60	2.10	3.10	4.70	6.50	7.75

WROUGHT PIPE COUPLINGS

Size.....	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Black.....	each	.05	.05	.06	.07	.10	.13	.17	.21	.28	.40	.60
Galvanized.....	"	.06	.06	.08	.10	.13	.18	.25	.32	.40	.55	.80
Right and Left, Black "		.07	.08	.11	.15	.20	.25	.30	.50	.85	1.20	
Size.....	inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12	....
Black.....	each	.80	1.00	1.50	1.65	2.40	3.25	4.25	5.50	7.50	10.00	....
Galvanized.....	"	1.05	1.40	2.00	2.25	3.25	....	....	....	....	....	....
Right and Left, Black "		1.60	2.00	....	....	....	....	....	....	....	....	....

LOCKNUT OR TANK NIPPLE



Fig. 10084C

HYDRAULIC COUPLINGS



Fig. 10084D

LOCKNUT OR TANK NIPPLES, WITHOUT COUPLING OR LOCKNUT

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Black, 6 inches Long.....	each	.12	.13	.18	.24	.29	.38
" Galvanized, 6 inches Long.....	"	.18	.21	.28	.38	.46	.61

Regularly furnished 6 inches long; longer lengths must be specified.

On sizes $2\frac{1}{2}$ inches and larger, lengths must be specified.

XX HYDRAULIC COUPLINGS

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Outside Diameter.....	inches	1.66	1.90	2.22	2.44	3.19	3.62
Length.....	"	1.88	2.63	2.98	3.13	3.38	3.63
Threads to inch of Screw.....		.14	$11\frac{1}{2}$	$11\frac{1}{2}$	$11\frac{1}{2}$	$11\frac{1}{2}$	8
Weight, Each.....	pounds	.70	1.12	1.50	1.88	3.55	4.50
Price, Plain.....	each	.40	.55	.70	.85	1.15	1.60
" Recessed, Plain.....	"	.50	.65	.85	1.00	1.30	1.85

STANDARD MALLEABLE IRON FITTINGS

CLASSIFICATION AND PRICE LIST

EFFECTIVE SEPTEMBER 15, 1919

BEADED OR BANDED



ELBOWS



Size, Inches

Class

$\frac{1}{8}$	A
$\frac{1}{4}$ to $\frac{3}{4} \times 1\frac{1}{2}$, $1x\frac{3}{8}$, $1x\frac{1}{2}$, $1\frac{1}{4}x1\frac{1}{2}$	B
$\frac{3}{4}$, 1 , $1x\frac{3}{4}$, $1\frac{1}{4}x\frac{3}{4}$, and Larger	C

RIGHT AND LEFT ELBOWS

$\frac{1}{4}$, $\frac{3}{8}$, $1\frac{1}{2}$	A
$\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, 2	B

45° ELBOWS

$\frac{1}{8}$	A
$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4} \times 1\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, 2	B
$2\frac{1}{2}$, 3 , $3\frac{1}{2}$, 4 , $4\frac{1}{2}$, 5 , 6	C

90° STREET ELBOWS

$\frac{1}{8}$	A
$\frac{3}{4}$ to $\frac{1}{2}$, $\frac{3}{4} \times 1\frac{1}{2}$, $\frac{3}{4}$, $1x\frac{3}{4}$	B
1 , $1\frac{1}{4}x1$ and Larger	C

45° STREET ELBOWS

$\frac{3}{8}$	A
$\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, 2	B



TEES

A

B

C

$\frac{1}{8}$	A
$\frac{1}{4}x\frac{3}{8}$ to $\frac{3}{4}x1\frac{1}{2}$, $1x\frac{3}{8}x1$ to $1x\frac{3}{4}x1\frac{1}{2}$	
$1x\frac{1}{4}$ to $1x1\frac{1}{2}$, $1\frac{1}{4}x\frac{3}{8}x1\frac{1}{4}$, $1\frac{1}{4}x$	
$1\frac{1}{2}x1\frac{1}{4}$, $1\frac{1}{4}x1x1\frac{1}{2}$, $1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	
$1\frac{1}{2}x1\frac{1}{2}$, $2x\frac{3}{8}$, $2x1\frac{1}{2}$	
$\frac{3}{4}x1$, $\frac{3}{4}$, $1x\frac{3}{4}x\frac{3}{4}$, $1x\frac{3}{4}x1$, $1x\frac{3}{4}$	
$1x1\frac{1}{4}$, $1x1\frac{1}{2}$, 1 , $1\frac{1}{4}x\frac{3}{4}x\frac{3}{4}$	
$1\frac{1}{4}x\frac{3}{4}x1$, $1\frac{1}{4}x\frac{3}{4}x1\frac{1}{4}$, $1\frac{1}{4}x1x\frac{3}{4}$	
$1\frac{1}{4}x1x1$, $1\frac{1}{4}x1x1\frac{1}{4}$, $1\frac{1}{4}x\frac{3}{4}$ to	
$1\frac{1}{4}x2$, $1\frac{1}{4}$, $1\frac{1}{2}x\frac{3}{4}x\frac{3}{4}$ to $1\frac{1}{2}x$	
$1\frac{1}{4}x1\frac{1}{2}$, $1\frac{1}{2}x\frac{3}{4}$ to $2x1\frac{1}{2}x2$, $2x\frac{3}{4}$	
to 6	

SERVICE TEES

B

C

$\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $1x\frac{3}{4}$	B
1 , $1\frac{1}{4}x\frac{3}{4}x1\frac{1}{4}$, $1\frac{1}{4}x1x1\frac{1}{4}$, $1\frac{1}{4}$	C



CROSSES

$\frac{1}{4}$ to 1 , $1\frac{1}{4}x1\frac{1}{2}$	B
$1\frac{1}{4}x\frac{3}{4}$ to 6	C

CAPS

$1\frac{1}{4}$ to 6	C
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REDUCERS

$\frac{3}{8}x\frac{1}{4}$ to $1\frac{1}{4}x1\frac{1}{2}$, $1\frac{1}{2}x1\frac{1}{2}$, $2x\frac{3}{8}$, $2x1\frac{1}{2}$	B
$1\frac{1}{4}x\frac{3}{4}$, $1\frac{1}{4}x1$, $1\frac{1}{2}x\frac{3}{4}$, $1\frac{1}{2}x1$, $1\frac{1}{2}x$	C

Y BENDS

$\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, 2 , $2\frac{1}{2}$, 3 , 4	B
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COUPLINGS—RIGHT HAND

$1\frac{1}{4}$ to 4	C
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$1\frac{1}{4}$ to $\frac{3}{4}$	B
$1\frac{1}{4}$	C



RETURN BENDS MEDIUM PATTERN

$\frac{1}{2}$, $\frac{3}{4}$, 1	B
$1\frac{1}{4}$, $1\frac{1}{2}$, 2	C

OPEN PATTERN

$\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1	B
$1\frac{1}{4}$, $1\frac{1}{2}$, 2 , $2\frac{1}{2}$, 3	C

Class	Black	Galv.
A	.46	.58
B	.20	.28
C	.13	.20

All fittings other than standard take 25 per cent extra charge to the above list in their respective classes.

STANDARD MALLEABLE IRON FITTINGS

CLASSIFICATION AND PRICE LIST

EFFECTIVE SEPTEMBER 15, 1919

PLAIN



ELBOWS



CAPS

Size, Inches	Class
$\frac{1}{8}, \frac{1}{4} \times \frac{1}{8}, \frac{3}{8} \times \frac{1}{8}$	A
$\frac{1}{4}, \frac{3}{8} \times \frac{1}{4}, \frac{3}{8}, \frac{1}{2} \times \frac{1}{4}, \frac{1}{2} \times \frac{3}{8}, \frac{1}{2}, \frac{3}{4} \times \frac{1}{2}$	B
$\frac{3}{8}, \frac{3}{4} \times \frac{1}{2}, 1 \times \frac{3}{8}, 1 \times \frac{1}{2}$ $\frac{3}{4}, 1 \times \frac{3}{4}$ and larger	C

60° ELBOWS

$1\frac{1}{2}, 2$	B
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SIDE OUTLET ELBOWS

$\frac{3}{8}, \frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 2$	B
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DROP ELBOWS

$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{3}{4}$	B
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DROP ELBOWS
MALE AND FEMALE

$\frac{3}{8}, \frac{1}{2}$	B
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LONG DROP ELBOWS

$\frac{3}{8}, \frac{1}{2}$	B
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TEES

$\frac{1}{8}, \frac{1}{4} \times \frac{1}{8}, \frac{3}{8} \times \frac{1}{8}$	A
$\frac{1}{4} \times \frac{3}{8}, \frac{1}{4}, \frac{3}{8} \text{ to } \frac{3}{4} \times \frac{1}{2}, 1 \times \frac{3}{8} \times 1 \text{ to } 1 \times \frac{3}{4} \times \frac{1}{2}, 1 \frac{1}{4} \times 1 \frac{1}{2} \times 1 \frac{1}{2}, 1 \frac{1}{4} \times 1 \frac{1}{2}, 1 \frac{1}{2} \times \frac{3}{8}, 1 \frac{1}{2} \times \frac{1}{2}$	B
$\frac{3}{4}, \frac{3}{4} \times 1, 1 \times \frac{3}{4} \times \frac{3}{4}, 1 \times \frac{3}{4} \times 1, 1 \frac{1}{4} \text{ to } 1 \frac{1}{4} \times 1 \frac{1}{4}, 1 \frac{1}{4} \times \frac{3}{4} \text{ to } 1 \frac{1}{2} \times 1 \frac{1}{4} \times 1 \frac{1}{2}, 1 \frac{1}{2} \times \frac{3}{4} \times 1 \frac{1}{2}$	C

$\frac{3}{8}, \frac{1}{2} \times \frac{3}{8}, \frac{1}{2}, \frac{3}{4} \times \frac{1}{2}, \frac{3}{4}$	B
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DROP TEES
MALE AND FEMALE

$\frac{3}{8}, \frac{1}{2}$	B
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FOUR-WAY TEES

$\frac{3}{8}, \frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 2$	B
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CROSSES

$\frac{1}{4} \text{ to } 1$	B
$\frac{1}{4} \text{ to } 2$	C

Straight and reducing.



CAPS

$\frac{1}{8}, \frac{1}{4} \text{ to } 1, \frac{1}{2}, \frac{3}{4} \text{ to } 2$	C
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$\frac{1}{4} \times \frac{1}{8}, \frac{3}{8} \times \frac{1}{8}$	A
$\frac{3}{8} \times \frac{1}{4}, \frac{1}{2} \times \frac{3}{8}$ to $1 \frac{1}{4} \times \frac{1}{2}, 1 \frac{1}{2} \times \frac{1}{2}$	B
$1 \frac{1}{4} \times \frac{3}{4}, 1 \frac{1}{4} \times 1, 1 \frac{1}{2} \times \frac{3}{4}$ to $2 \times 1 \frac{1}{2}$	C

REDUCERS

$\frac{1}{8}, \frac{1}{4} \text{ to } 1, \frac{1}{2}, \frac{3}{4} \text{ to } 2$	C
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LOCKNUTS

$\frac{1}{8}, \frac{1}{4} \text{ to } 1 \frac{1}{4}, \frac{1}{2} \text{ to } 4$	C
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$\frac{1}{8}, \frac{1}{4} \text{ to } \frac{3}{4}$	B
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COUPLINGS—RIGHT HAND

$\frac{1}{8}, \frac{1}{4} \text{ to } \frac{3}{4}$	B
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WASTE NUTS

$\frac{1}{4} \text{ to } 2$	B
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$\frac{3}{8}, \frac{1}{2}$	B
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$\frac{3}{8} \text{ to } 2$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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$\frac{1}{2}$	B
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<math

MALLEABLE IRON FITTINGS



Fig. 8031A



Fig. 8091B



Fig. 8091D



Fig. 8091E

90° STRAIGHT AND REDUCING ELBOWS

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/8	.06	.08	2	.50	.90
1/4	.07	.09	2 1/2	.90	1.50
3/8	.08	.11	3	1.50	2.60
1/2	.10	.14	3 1/2	2.25	3.75
5/8	.15	.20	4	3.00	5.00
1	.22	.32	4 1/2	3.50	...
1 1/4	.25	.40	5	4.00	6.50
1 1/2	.35	.60	6	6.50	10.00

90° RIGHT AND LEFT ELBOWS					
Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.09	.12	1	.25	.35
3/8	.11	.16	1 1/4	.30	.45
1/2	.13	.17	1 1/2	.40	.65
5/8	.17	.23	2	.65	1.00

45° ELBOWS

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.08	.12	2 1/2	1.25	1.90
3/8	.10	.15	3	2.50	3.75
1/2	.12	.20	3 1/2	3.25	4.75
5/8	.18	.25	4	4.50	6.75
1	.26	.40	4 1/2	5.25	...
1 1/4	.36	.50	5	6.00	9.00
1 1/2	.54	.85	6	7.50	11.00
2	.82	1.35	...	...	...

SIDE OUTLET ELBOWS



Fig. 8091C

Size. In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.08	.10	1	.30	.45
3/8	.08	.10	1 1/4	.45	.65
1/2	.10	.15	1 1/2	.60	.90
5/8	.18	.25	2	1.00	1.50



Fig. 8091D



Fig. 8091E

90° STREET ELBOWS

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Black
1/8	.08	.10	1 1/4	.40	.55
1/4	.10	.12	1 1/2	.55	.80
3/8	.10	.12	2	.90	1.30
1/2	.12	.15	2 1/2	1.50	2.25
5/8	.20	.28	3	2.25	3.50
1	.25	.35	4	3.50	...

45° STREET ELBOWS

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black
1/8	.12	.15	1 1/4	.40	.55
1/4	.12	.15	1 1/2	.55	.80
3/8	.12	.15	2	.90	1.30
1/2	.12	.15	2 1/2	...	...
5/8	.20	.28	3	2.25	...
1	.25	.35	4	3.50	...

DROP ELBOWS

MALE AND FEMALE



Fig. 8091F



Fig. 8091G

FEMALE DROP ELBOWS

Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.06	.09
3/8	.08	.12
1/2	.12	.20
5/8	.20	.35

MALE AND FEMALE DROP ELBOWS

Size In.	PRICE, EACH Black	PRICE, EACH Galv.
3/8	.08	.12
1/2	.12	.20

MALLEABLE IRON FITTINGS

STRAIGHT TEES



Fig. 8061A

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Galv.	SIZE In.	PRICE, EACH Black	PRICE, EACH Galv.
1/8	.07	.09	2	.60	1.00	
1/4	.08	.10	2 1/2	1.05	1.90	
3/8	.09	.13	3	1.70	3.00	
1/2	.11	.16	3 1/2	2.50	4.25	
5/8	.15	.20	4	3.40	5.75	
1	.25	.38	4 1/2	4.25	6.75	
1 1/4	.30	.50	5	5.00	8.00	
1 1/2	.45	.70	6	7.75	12.00	

REDUCING TEES



Fig. 8061B

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Galv.	SIZE In.	PRICE, EACH Black	PRICE, EACH Galv.
1/8	.07	.09	2	.60	1.00	
1/4	.08	.10	2 1/2	1.05	1.90	
3/8	.09	.13	3	1.70	3.00	
1/2	.11	.16	3 1/2	2.50	4.25	
5/8	.15	.20	4	3.40	5.75	
1	.25	.38	4 1/2	4.25	6.75	
1 1/4	.30	.50	5	5.00	8.00	
1 1/2	.45	.70	6	7.75	12.00	

SERVICE TEES



Fig. 8061C

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Galv.	SIZE In.	PRICE, EACH Black	PRICE, EACH Galv.
3/8	.12	.15	2	1.15	1.65	
1/2	.15	.20	2 1/2	2.00	2.75	
5/8	.25	.35	3	2.50	3.50	
1	.35	.50	3x2 1/2x3	2.50	3.50	
1 1/4	.50	.70	3x3 x4	4.00	6.00	
1 1/2	.75	1.10	.....	.....	.....

TEES



Fig. 8061D



Fig. 8061E

Size In.	PRICE, EACH		FEMALE Black	FEMALE Galv.	MALE AND FEMALE	
	FEMALE Black	FEMALE Galv.	MALE Black	MALE Galv.	FEMALE Black	FEMALE Galv.
3/8	.10	.15	.15	.15	.10	.15
1/2	.14	.25	.25	.25	.14	.25
5/8	.22	.40	.22	.40	.22	.40
1	.30	.55	.30	.55	.30	.55

FOUR-WAY TEES



Fig. 8061F

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.08	.12	1	.35	.50	
3/8	.12	.17	1 1/4	.50	.70	
1/2	.14	.20	1 1/2	.80	1.10	
5/8	.20	.28	2	1.25	1.75	

STRAIGHT AND REDUCING CROSSES



Fig. 8061G

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.09	.12	2	1.00	1.50	
3/8	.10	.14	2 1/2	1.75	2.75	
1/2	.16	.25	3	3.00	4.50	
5/8	.20	.29	3 1/2	3.25	5.00	
1	.30	.45	4	5.25	8.00	
1 1/4	.40	.60	5	7.50	12.00	
1 1/2	.60	.90	6	13.00	18.00	

MALLEABLE IRON FITTINGS

STRAIGHT AND REDUCING
Y BRANCHES

Fig. 8696A

Size Inches	PRICE, EACH Black	SIZE Inches	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Galv.
1/2	.40	.60	2	1.70	2.50		
3/4	.50	.75	2 1/2	2.00	3.00		
1	.60	.90	3	4.00	6.00		
1 1/4	.80	1.25	4	5.50	8.25		
1 1/2	1.00	1.50	...	...	...

REDUCING



Fig. 8696D

COUPLINGS

RIGHT AND
LEFT HAND

Fig. 8696E

REGULAR CROSSOVERS



Fig. 8696B

Size Inches	To Cross Pipe Inches	Price Galv. Each	Size Inches	To Cross Pipe Inches	Price Galv. Each
1/2	1/2	.22	3/4	1	.50
1/2	3/4	.35	3/4	1 1/4	.62
1/2	1	.45	1	1	.49
1/2	1 1/4	.60	1	1 1/4	.68
3/4	3/4	.32	...	...	...

CROSSOVERS WITH BACK
OUTLET

Fig. 8696C

Size Inches	To Cross Pipe Inches	Price Galvanized Each
1/2	1/2	.26
3/4	3/4	.39
1	1	.60

RIGHT AND LEFT HAND

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Galv.
1/4	.04	.06	.25
3/8	.06	.09	.36
1/2	.08	.10	.52
3/4	.12	.17	.70
1	.16	.25	1.00

LONG SCREW COUPLINGS
AND FOLLOWERS

COUPLING



Fig. 8696F

FACED



Fig. 8696G

COUPLINGS

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Galv.
1/4	.09	.14	.30
3/8	.10	.15	.40
1/2	.12	.18	.50
3/4	.16	.24	.70
1	.22	.33	1.00

FOLLOWERS

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Galv.
1/4	.08	.11	.20
3/8	.09	.13	.25
1/2	.10	.15	.30
3/4	.12	.18	.35
1	.15	.22	.45

MALLEABLE IRON FITTINGS

CLOSE PATTERN RETURN BENDS



Fig. 8051A

MEDIUM PATTERN RETURN BENDS



Fig. 8051C

Size In.	Center to Center Inches	PRICE, EACH			Size In.	Center to Center Inches	PRICE, EACH		
		RIGHT-HAND Black	Galv.	Right and Left Black			RIGHT-HAND Black	Galv.	Right and Left Black
3/8	...	.16	.23	...	...	3/8	1 5/8	.16	.23
1/2	1	.18	.25	.23	.23	1/2	1 1/4	.18	.25
3/4	1 1/4	.25	.35	.30	.30	3/4	1 1/4	.25	.35
1	1 1/2	.35	.55	.45	.45	1	1 7/8	.35	.55
1 1/4	1 3/4	.50	.75	.60	.60	1 1/4	2 1/4	.50	.75
1 1/2	2 3/8	.75	1.15	.90	.90	1 1/2	2 1/2	.75	1.15
2	2 5/8	1.00	1.65	1.25	1.25	2	3	1.00	1.65

Size In.	Center to Center Inches	PRICE, EACH			Size In.	Center to Center Inches	PRICE, EACH		
		RIGHT-HAND Black	Galv.	Right and Left Black			RIGHT-HAND Black	Galv.	Right and Left Black
3/8	...	.16	.23	...	...	3/8	1 5/8	.16	.23
1/2	1	.18	.25	.23	.23	1/2	1 1/4	.18	.25
3/4	1 1/4	.25	.35	.30	.30	3/4	1 1/4	.25	.35
1	1 1/2	.35	.55	.45	.45	1	1 7/8	.35	.55
1 1/4	1 3/4	.50	.75	.60	.60	1 1/4	2 1/4	.50	.75
1 1/2	2 3/8	.75	1.15	.90	.90	1 1/2	2 1/2	.75	1.15
2	2 5/8	1.00	1.65	1.25	1.25	2	3	1.00	1.65

OPEN PATTERN RETURN BENDS



Fig. 8051B

SPECIAL WIDE PATTERN RETURN BENDS



Fig. 8051D

Size In.	Center to Center Inches	PRICE, EACH			Size In.	Center to Center Inches	PRICE, EACH		
		RIGHT-HAND Black	Galv.	Right and Left Black			RIGHT-HAND Black	Galv.	Right and Left Black
3/8	1 3/8	.18	.25	...	...	3/4	4	1.00	1.35
1/2	1 1/2	.20	.28	.25	.25	1	4	1.25	1.65
3/4	2	.30	.45	.38	.38	1 1/4	6	1.25	1.70
1	2 1/2	.50	.70	.60	.60	1	6	1.25	1.70
1 1/4	3	.65	.90	.80	.80	2	6	1.25	1.70
1 1/2	3 1/2	.85	1.25	1.05	1.05	3	6	2.00	2.75
2	4	1.25	2.00	1.55	1.55	2	5	3.00	4.00
2 1/2	4 1/2	2.00	3.50	2.50	2.50	3	6	4.00	5.00
3	5	3.00	5.00	3.75	3.75	4	8	5.00	6.50
						5	6	8.00	10.00
						6	12	16.00	20.00

MALLEABLE IRON FITTINGS

BUSHING



Fig. 6841A

FACED BUSHING



Fig. 6841B

WALL PLATES



Fig. 6841E

BUSHINGS

REDUCING ONE SIZE ONLY

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.04	.08	$1\frac{1}{4}$	.07	.14
$\frac{3}{8}$	.04	.08	$1\frac{1}{2}$	.09	.18
$\frac{1}{2}$	.04	.08	2	.14	.28
$\frac{5}{8}$	.05	.10	$2\frac{1}{2}$	.21	.42
1	.06	.12	...	...	...

FACED BUSHINGS

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{3}{8}$	.08	.12	$2\frac{1}{2}$	.48	.72
$\frac{1}{2}$	.09	.14	3	.70	1.05
$\frac{5}{8}$	.11	.17	$3\frac{1}{2}$	1.20	1.80
1	.13	.20	4	1.50	2.25
$1\frac{1}{4}$	.17	.25	$4\frac{1}{2}$	2.10	3.15
$1\frac{1}{2}$	.22	.33	5	2.60	3.90
2	.32	.48	6	3.75	5.60

CAP

LOCKNUT



Fig. 6841C



Fig. 6841D

LOCKNUTS

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.02	.03	1	.07	.10
$\frac{3}{8}$	.03	.04	$1\frac{1}{4}$	.09	.14
$\frac{1}{2}$	.04	.05	$1\frac{1}{2}$	.11	.20
$\frac{5}{8}$	.05	.07	2	.18	.30

CAPS

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{8}$	.03	.04	2	.32	.52
$\frac{1}{4}$	.03	.04	$2\frac{1}{2}$	.45	.76
$\frac{3}{8}$	.04	.05	3	.85	1.30
$\frac{5}{8}$	.05	.08	$3\frac{1}{2}$	1.00	1.60
$\frac{1}{2}$	.08	.12	4	1.20	2.00
$\frac{3}{4}$	.12	.17	5	2.50	3.50
1	.16	.24	6	3.50	5.00
$1\frac{1}{4}$	.24	.38	...	...	...

GALVANIZED

Size Inches	Standard	Extra Long
$\frac{1}{2}$	.20	.25
$\frac{3}{4}$	.30	.35
$1\frac{1}{2} \times \frac{3}{4}$	.30	.35

Finished brass and nickel-plated wash tray fittings on application.

RAILING FITTINGS MALLEABLE IRON AND BRASS



Fig. 13863A



Fig. 13863B



Fig. 13863C



Fig. 13863D



Fig. 13863E



Fig. 13863F



Fig. 13863G



Fig. 13863H



Fig. 13863J

MALLEABLE IRON

Size Inches	No. 2 Side Elbows		No. 4 Side Outlet Tees		No. 6 Side Outlet Crosses		No. 8 Floor Flanges		No. 9 Acorns	
	No. 1 Elbows	Side Outlets	No. 3 Tees	No. 5 Crosses	No. 7 Crosses	No. 8 Flanges	No. 9 Flanges	No. 10 Acorns		
1/2	.15	.20	.20	.30	.30	.35	.14	.16	.16	
3/4	.18	.23	.23	.33	.33	.38	.15	.18	.18	
1	.20	.25	.25	.35	.35	.40	.15	.20	.20	
1 1/4	.35	.40	.40	.45	.45	.50	.20	.40	.25	
1 1/2	.45	.50	.50	.55	.58	.65	.28	.50	.35	
2	.72	.80	.75	.90	1.00	1.35	.30	.90	.90	
2 1/2	1.00	1.15	1.20	1.40	1.50	1.75	.50	...	1.00	
3	1.50	1.70	1.90	2.15	2.25	2.60	.75	...	1.50	

POLISHED BRASS

1/2	.40	.75	.60	1.05	1.05	1.20	.26	.60	.60
3/4	.60	1.00	.85	1.25	1.25	1.45	.35	.90	.90
1	.80	1.10	1.10	1.50	1.50	1.70	.40	1.00	1.00
1 1/4	1.20	1.70	1.70	2.00	2.00	2.25	.70	1.35	1.35
1 1/2	1.60	2.00	2.00	2.40	2.40	3.00	.95	1.75	1.75
2	2.50	3.00	3.00	3.50	3.50	4.00	1.30	2.50	2.50

In ordering railing fittings, describe kind wanted by number and size. Railing fittings will always be furnished with all openings tapped right-hand unless otherwise specified. Railing fittings tapped right and left or left-hand will be charged for at 15 per cent additional, net. For galvanized railing fittings, add 50 per cent to above list.

MALLEABLE IRON RAILING FITTINGS ADJUSTABLE



Fig. 34840A
No. 70

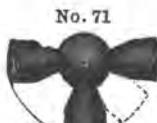


Fig. 34840B
No. 71



Fig. 34840C
No. 72



Fig. 34840D
No. 73



Fig. 34840E
No. 75



Fig. 34840F
No. 76



Fig. 34840G
No. 77

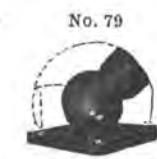


Fig. 34840H
No. 79

Almost any angle required for stair railings may be obtained with these fittings. All openings will be furnished tapped right hand. When ordered tapped otherwise, they will be charged 15 per cent additional net. In ordering, describe kind wanted by number and size.

Pipe Size	inches	1	1 1/4	1 1/2	2
Price, No. 70, Elbows	each	1.10	1.25	1.70	2.25
" " 71, Tees	"	1.30	1.50	2.00	2.50
" " 72, Stair Tees	"	1.30	1.60	2.15	2.50
" " 73, Crosses	"	1.50	1.75	2.35	2.75
" " 74, Stair Crosses	"	1.50	1.85	2.50	2.75
" " 75, " Landing Tees	"	.90	1.10	1.50	2.15
" " 76, " " Crosses	"	1.00	1.20	1.60	2.40
" " 79, Flanges	"	1.65	1.75	1.90	2.50

Add 50 per cent to above prices for galvanized railing fittings.

45° ANGLE

No. 36C

No. 26D



Fig. 34840J
No. 36A



Fig. 34840K
No. 36B



Fig. 34840L
No. 36C



Fig. 34840M
No. 26D



Fig. 34840N
No. 36E

Size	inches	1	1 1/4	1 1/2	2	2 1/2	3
Price, No. 36A, Elbows	each	.40	.70	.90	1.50	.....	.....
" " 36F, " Side Outlet	"	.50	.80	1.00	1.65	.....	.....
" " 36B, " "	"	.45	.75	.95	1.60	.....	.....
" " 36G, " Side Outlet	"	.55	.85	1.05	1.75	.....	.....
" " 36C, Tees	"	.50	.80	1.00	1.65	.....	.....
" " 36H, " Side Outlet	"	.60	.90	1.10	1.75	.....	.....
" " 36D, Crosses	"	.60	.90	1.10	1.75	.....	.....
" " 36I, " Side Outlet	"	.80	1.10	1.25	2.00	.....	.....
" " 36E, Flanges Round	"	.40	.50	.60	.70	1.50	2.00
" " 36K, " Square	"	.40	.50	.60	.70	1.50	2.00

Angle railing fittings, differing from above, at special prices. Can be furnished in brass. Prices upon application.

UNIONS

STANDARD MALLEABLE



Fig. 13944A

JEFFERSON FEMALE



Fig. 13944B

MALE AND FEMALE



Fig. 13944C

STANDARD

Size.....	.....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
Price, Female, Black.....	each	.18	.18	.20	.22	.27	.33	.46
" " Galvanized "		.27	.27	.30	.33	.40	.50	.70
Size.....	.....inches	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	...
Price, Female, Black.....	each	.58	.75	1.55	2.10	3.65	4.35	...
" " Galvanized "		.90	1.15	2.35	3.15	5.50	6.50	...

JEFFERSON FEMALE

The construction is very heavy throughout with a brass-to-iron ground ball joint. It is made with malleable iron pipe ends which will not stretch. The nut threads are coarse enough to permit of rapid adjustment and are coated with graphite to lubricate them and prevent their corrosion.

Size.....	.....inches	$\frac{1}{8}$ and $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
Price, Black.....	each	.30	.40	.50	.60	.80	1.20
" " Galvanized.....		.45	.60	.75	.90	1.20	1.80
Size.....	.....inches	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price, Black.....	each	1.60	2.00	3.20	4.80	8.00	10.00
" " Galvanized.....		2.40	3.00	4.80	7.20	12.00	15.00

JEFFERSON MALE AND FEMALE

Size.....	.....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price, Black.....	each	.46	.50	.63	.74	.95	1.30	1.70	2.60	3.80	5.40
" " Galvanized.....		.51	.56	.71	.87	1.10	1.60	2.00	3.20	4.80	6.80

JEFFERSON FLANGE UNIONS



Fig. 13944D

Is made of the highest grade of malleable iron. Has a ground spherical bronze seat. No washers or gaskets to be fitted when using this fitting. The loose collar is a great time saver in applying, and it will make up tight, even when pipes are not in line. Suitable for working pressures not exceeding 200 pounds.

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Price.....	each	.55	.60	.80	1.20	1.60	2.00	3.20	4.80	6.00
Size.....	.....inches	4	$4\frac{1}{2}$	5	6	7	8	9	10	...
Price.....	each	7.50	8.75	10.00	12.50	15.00	18.00	21.60	28.80	...

MALLEABLE IRON FITTINGS

UNION ELBOWS

MALE



Fig. 5210A

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.43	.65	$1\frac{1}{4}$	1.05	1.60
$\frac{3}{8}$	.45	.70	$1\frac{1}{2}$	1.20	1.80
$\frac{1}{2}$	.48	.72	2	1.80	2.70
$\frac{3}{4}$	.62	.93	$2\frac{1}{2}$	3.30	4.95
1	.72	1.08	...	...	...

FEMALE



Fig. 5210B

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.38	.57	$1\frac{1}{4}$	.90	1.35
$\frac{3}{8}$	.40	.60	$1\frac{1}{2}$	1.05	1.58
$\frac{1}{2}$	.42	.63	2	1.55	2.35
$\frac{3}{4}$	.54	.81	$2\frac{1}{2}$	2.85	4.30
1	.63	.95	...	...	...

UNION TEES

MALE



Fig. 5210C

Size Inches	PRICE, EACH		PRICE, EACH	
	MALE Black	Galv.	MALE Black	Galv.
$\frac{1}{4}$	.48	.72	.40	.60
$\frac{3}{8}$	.50	.75	.43	.65
$\frac{1}{2}$	.52	.78	.45	.68
$\frac{3}{4}$	.65	1.00	.57	.86
1	.80	1.20	.70	1.05
$1\frac{1}{4}$	1.10	1.65	.95	1.45
$1\frac{1}{2}$	1.30	1.95	1.15	1.75
2	1.95	2.95	1.70	2.55
$2\frac{1}{2}$	3.70	5.55	3.20	4.80

BOILER ELBOWS
OLD PATTERN

PLAIN



Fig. 5210D

WITH UNION



Fig. 5210E

NEW PATTERN—WITH UNION



Fig. 5210F

Size Female, Male Inches	PRICE, EACH Plain Galv.	PRICE, EACH With Union Galv.
$\frac{3}{4} \times \frac{3}{4} \times 1$	.40	.75
$\frac{3}{4} \times \frac{1}{2} \times 1$	.40	.75
$\frac{1}{2} \times \frac{1}{2} \times 1$	.40	.60

In ordering, always specify whether old pattern or new pattern is wanted. Unless otherwise specified, old pattern union elbows will be furnished.

BOILER COUPLINGS
WITH UNION

Fig. 5210G

Size Female, Male Inches	PRICE, EACH Plain Galv.	PRICE, EACH With Union Galv.
$\frac{3}{4} \times \frac{3}{4} \times 1$	.40	.75
$\frac{3}{4} \times \frac{1}{2} \times 1$	.40	.75
$\frac{1}{2} \times \frac{1}{2} \times 1$	.40	.60

LONG BOILER UNION
TEES

For bottom connection of range boiler. Galvanized.

Size Inches	PRICE, EACH With Union	PRICE, EACH Without Union
$\frac{3}{4} \times \frac{1}{2} \times 1$	.80	.50



Fig. 5210H

GAS BRACKETS, BURNERS AND FITTINGS

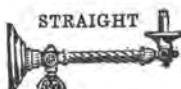
STAPLE GAS BRACKETS
WITH ROUND GILT TUBE

Fig. 1674A

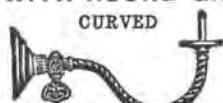


Fig. 1674B

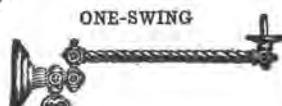


Fig. 1674C

Price, Stiff Brackets, Straight or Curved.....	each	.45
" One-Swing Brackets.....	"	.50

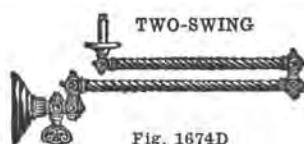


Fig. 1674D

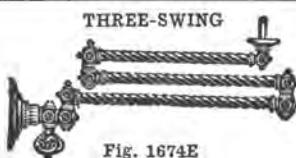


Fig. 1674E

Price, Two-Swing Brackets.....	each	.80
" Three-Swing "	"	1.10

BRASS GAS FIXTURE FITTINGS

"L" BURNER COCK



Fig. 1674F

STRAIGHT COCK



Fig. 1674G

PILLAR COCK



Fig. 1674H

HOSE COCK



Fig. 1674J

INDEPENDENT COCK



Fig. 1674K

Size.....	inches	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{8} \times \frac{1}{4}$	$\frac{3}{8} \times \frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4} \times \frac{1}{8}$	$\frac{3}{8}$
Price, "L" Burner Cocks.....per dozen		...	5.20	...	4.55	4.55	4.25	4.25
" Straight Cocks....."	"	6.20	4.90	4.55	4.55	4.55	4.25	3.90
" Pillar "	"	...	4.55	...	4.25	4.25	3.90	3.90
" Hose Cocks....."	"	5.55	4.90	...	4.55	4.55	4.25	4.25
" Independent Cocks....."	"	9.00	7.00	...	7.00	7.00	7.00	7.00

GAS BURNERS AND STAPLES

BRASS
PILLAR

Fig. 1674L

LAVA
TIP

Fig. 1674M

BRACKET
BACK

Fig. 1674N

Price, Brass Pillars.....	per gross	4.50
" Lava Tips.....	"	1.20

BRACKET BACKS

Size.....	inches	$2\frac{1}{2}$	3	4	5
Price.....per dozen		.40	.60	1.20	2.50

BRASS AND COPPER PIPE AND NIPPLES

BRASS AND COPPER PIPE, IRON PIPE SIZES



Fig. 29568A

EXTRAS OVER BASE PRICE BRASS TUBES

I. P. Sizes Inches	WEIGHT, POUNDS Brass	WEIGHT, POUNDS Copper	Price per Lb.	I. P. Sizes Inches	WEIGHT, POUNDS Brass	WEIGHT, POUNDS Copper	Price per Lb.	I. P. Sizes Inches	WEIGHT, POUNDS Brass	WEIGHT, POUNDS Copper	Price per Lb.
1/8	.25	.26	.10	1 1/4	2.5	2.63	Base	4	12.7	13.33	...
1/4	.43	.45	.07	1 1/2	3	3.15	Base	4 1/2	13.9	14.6	.03
3/8	.62	.65	.04	2	4	4.2	Base	5	15.75	16.54	.06
1/2	.9	.95	.02	2 1/2	5.75	6.04	Base	6	18.31	19.23	.07
5/8	1.25	1.31	Base	3	8.3	8.72	Base	7	26.28	27.6	.09
1	1.7	1.79	Base	3 1/2	10.9	11.45	...	8	29.88	31.37	.11

Extra addition for copper pipe over brass.

TABLE OF DIMENSIONS

I. P. Sizes In.	Amer. or B. & S. Gauge	APPROX. DIAM. INCHES	EXACT DIAM. INCHES	I. P. Sizes Inches	Amer. or B. & S. Gauge	APPROX. DIAM. INCHES	EXACT DIAM. INCHES				
1/8	14	1 3/8	.64	.405	.281	2 1/2	4	2 7/8	2 15/16	2.875	2.5
1/4	11	9/16	.64	.54	.375	3	7/8	3 1/2	3 15/16	3.500	3.062
3/8	11	11/16	.70	.675	.494	3 1/2	15/16	4	3 1/2	4	3.5
1/2	9 1/2	13/16	.84	.84	.625	4	1 1/4	4 1/2	4 3/8	4.500	4
5/8	9	1 1/16	.84	1.05	.822	4 1/2	1 1/4	5	4 1/2	5	4.5
1	7 1/2	1 5/16	1 3/4	1.315	1.062	5	17/16	3 9/16	5 3/4	5.563	5.062
1 1/4	7	1 5/8	1 3/8	1.66	1.368	6	1 1/4	6 5/8	6 1/8	6.625	6.125
1 1/2	7	1 7/8	1 3/2	1.9	1.600	7	1 9/16	7 5/8	7 3/2	7.625	7.062
2	6 1/2	2 3/8	2 1/16	2.375	2.062	8	21/16	8 5/8	7 3/4	8.626	7.982

Regular lengths about 12 foot. Longer lengths to order. Cut lengths, extra charge.

BRASS NIPPLES, IRON PIPE SIZES

Close



Fig. 29568B

Long



Fig. 29568C

Size Inches	Length Inches	Price Each Close	PRICE EACH LENGTH, INCHES								
			1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2
1/8	3/4	.11	.13	.15	.17	.19	.21	.23	.25	.27	.29
1/4	7/8	.13	.16	.19	.22	.25	.28	.31	.34	.37	.40
3/8	1	.15	.19	.23	.27	.31	.35	.39	.43	.47	.51
1/2	1 1/8	.23	.25	.30	.35	.40	.45	.50	.55	.60	.65
5/8	1 3/8	.28		.35	.42	.49	.56	.63	.70	.77	.84
1	1 1/2	.37		.44	.53	.62	.71	.80	.89	.98	1.07
1 1/4	1 5/8	.60			.75	.88	1.01	1.14	1.27	1.40	1.53
1 1/2	1 3/4	.70				.90	1.05	1.20	1.35	1.50	1.65
2	2	1.00					1.20	1.40	1.60	1.80	2.00
2 1/2	2 1/2	1.70						2.00	2.30	2.60	2.90
3	2 1/2	2.50						2.90	3.30	3.70	4.10
3 1/2	2 3/4	4.00								5.40	6.00
4	3	4.75								6.15	6.85
4 1/2	3	5.50								7.20	8.05
5	3 1/2	8.50									10.60
6	3 1/2	11.50									14.10

Polished brass nipples, longer than close, 25 per cent extra.

ROUGH BRASS FITTINGS

MALLEABLE IRON PATTERN, IRON PIPE SIZE

For Steam Working Pressure up to 125 Pounds



Fig. 733A



Fig. 733B



Fig. 733C

UNIONS



Fig. 733D



Fig. 733E

Size	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	
Elbows, 90°	each	.12	.15	.20	.28	.40	.63	.90	1.20	2.00	3.50	6.00	8.00	10.00	
" Reducing	"	.19	.25	.35	.50	.80	1.10	1.50	2.50	4.25	7.50	10.00	12.50		
" 45°	"	.16	.20	.25	.31	.40	.63	.90	1.20	2.00	3.50	6.00	.....	10.00
" Street	"	.25	.27	.33	.48	.63	.85	1.50	2.00	3.25	.....	.....	.....
" Side Outlet . . . . .	"	.....	.....	.60	.85	1.20	1.90	2.75	3.60	6.00	10.50	18.00	.....	
" Drop, Female . . . . .	"	.....	.35	.45	.65	1.05	1.50	2.00	3.40	.....	.....	.....	.....
Tees	"	.17	.21	.28	.40	.55	.85	1.25	1.70	2.80	5.00	8.50	11.00	14.00	
" Reducing	"	.25	.35	.50	.70	1.05	1.55	2.10	3.50	6.25	10.50	14.00	17.50		
" Drop, Female . . . . .	"	.....	.43	.57	.80	1.25	.....	.....	.....	.....	.....	.....	.....
Crosses	"	.25	.30	.40	.55	.80	1.25	1.80	2.40	4.00	7.00	12.00	16.00	20.00	
" Reducing . . . . .	"	.....	.38	.50	.70	1.00	1.55	2.25	3.00	5.00	8.75	15.00	20.00	25.00
Couplings	"	.10	.13	.17	.25	.37	.55	.80	1.00	1.60	2.50	3.50	5.25	7.00	
" R. and L. . . . .	"	.....	.17	.22	.30	.45	.70	1.00	1.30	2.00	3.10	4.50	.....	
Bushings, Regular . . . . .	"	.....	.10	.12	.15	.22	.35	.50	.70	1.00	1.50	2.50	3.75	5.00
" Faced . . . . .	"	.....	.12	.15	.19	.27	.44	.62	.87	1.25	1.85	3.10	4.75	6.25
Plugs, Regular	"	.08	.10	.12	.15	.20	.30	.45	.60	.95	1.50	2.25	3.75	5.00	
" Solid . . . . .	"	.....	.18	.22	.30	.45	.80	1.20	1.90	3.00	4.50	7.50	10.00	
" Countersunk . . . . .	"	.....	.....	.....	.22	.30	.45	.65	.90	1.40	.....	.....	.....
Caps	"	.10	.13	.16	.20	.30	.42	.60	.80	1.25	2.50	3.50	5.50	7.00	
Locknuts	"	.10	.10	.12	.15	.20	.28	.40	.55	.80	1.75	2.75	4.00	5.00	
Return Bends, Close . . . . .	"	.....	.....	.....	.70	1.00	1.25	1.80	2.50	4.25	.....	.....	.....
" " Open . . . . .	"	.....	.....	.....	.....	.80	1.10	1.40	2.15	3.00	4.75	8.25	11.00	.....
"Y" Bends . . . . .	"	.....	.....	.....	.....	.75	1.10	1.65	2.50	3.30	5.50	9.50	16.00	26.00
Unions, Standard, Rough . . . . .	"	.....	.50	.65	.85	1.15	1.60	2.25	2.70	4.00	7.50	11.50	.....	
" " Semifinished	"45	.55	.75	.95	1.30	1.75	2.50	3.00	4.50	8.25	12.75	22.50	30.00
" Octagon, Rough . . . . .	"	.....	.65	.85	1.10	1.50	2.00	2.80	3.60	5.25	9.00	14.00	.....	.....
Nipples, Close	"	.11	.13	.15	.23	.28	.37	.60	.70	1.00	1.70	2.50	4.00	4.75	

Prices covering brass nipples in long sizes, on application.

BRASS FITTINGS

MALLEABLE IRON PATTERN, IRON PIPE THREAD

For Steam Working Pressure up to 125 Pounds

Effective, January 1, 1915

FINISHED

Size inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Elbows, 90° each	.30	.35	.45	.56	.75	1.10	1.55	2.00	3.00	5.50	9.00	14.00	17.50
" Reducing "	.44	.55	.70	.95	1.40	1.90	2.50	3.75	6.75	11.25	17.50	22.00	
" 45° "	.38	.45	.55	.66	.85	1.23	1.70	2.20	3.25	6.00	9.75	15.50	19.50
" Street "	.47	.52	.63	.82	1.08	1.45	2.30	3.00	4.50	8.50	13.75	—	
Tees "	.42	.49	.63	.80	1.05	1.50	2.15	2.80	4.20	7.75	12.75	19.50	24.50
" Reducing "	.60	.77	1.00	1.30	1.85	2.65	3.50	5.25	9.75	15.80	24.50	30.50	
Crosses "	.60	.70	.90	1.10	1.50	2.20	3.10	4.00	6.00	11.00	18.00	28.00	35.00
" Reducing "	.88	1.10	1.40	1.85	2.75	3.85	5.00	7.50	13.75	22.50	35.00	44.00	
Couplings "	.24	.28	.36	.46	.63	.90	1.30	1.60	2.35	4.00	5.75	9.75	12.50
" R. and L. . . . "	.31	.37	.47	.58	.80	1.15	1.65	2.10	3.00	5.10	7.50	—	
" Reducing "	.35	.45	.56	.75	1.05	1.55	1.90	2.75	4.75	7.00	12.00	15.50	
Bushings, Regular "	.22	.27	.35	.47	.70	1.00	1.40	2.00	3.00	4.50	6.25	8.00	
Plugs "	.23	.30	.37	.43	.55	.75	1.00	1.30	1.95	3.00	4.25	6.25	8.00
Caps "	.20	.25	.32	.40	.55	.77	1.10	1.50	2.25	4.00	5.50	8.00	10.00
Locknuts "	.24	.25	.32	.40	.50	.65	.85	1.10	1.60	3.25	4.75	6.50	8.00
Return Bends, Close "	.85	1.00	1.30	1.55	2.05	2.65	3.75	4.90	7.25	13.00	19.00	—	
" Open "	.95	1.10	1.35	1.65	2.15	2.80	4.10	5.40	7.75	14.25	20.00	—	
"Y" Bends "	—	—	—	—	—	—	—	—	—	—	—	33.00	41.00
Unions "	.50	.60	.85	1.05	1.40	1.90	2.75	3.25	5.00	9.00	14.00	25.00	33.00
" Octa "	—	—	—	—	—	—	—	—	—	—	—	25.00	33.00

NICKEL-PLATED

Size inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Elbows, 90° each	.36	.42	.53	.65	.87	1.25	1.75	2.25	3.35	6.15	10.00	16.00	20.00
" Reducing "	.52	.65	.82	1.10	1.60	2.15	2.85	4.15	7.60	12.50	20.00	25.00	
" 45° "	.45	.53	.65	.78	1.00	1.43	1.95	2.55	3.65	6.85	11.00	18.00	22.50
" Street "	.54	.60	.73	.95	1.23	1.65	2.55	3.35	4.90	9.35	15.00	—	
Tees "	.50	.58	.75	.93	1.22	1.70	2.45	3.15	4.65	8.65	14.00	22.30	28.00
" Reducing "	.72	.90	1.15	1.50	2.10	3.00	3.95	5.85	10.90	17.50	28.00	35.00	
Crosses "	.72	.84	1.05	1.30	1.75	2.50	3.50	4.50	6.70	12.30	20.00	32.00	40.00
" Reducing "	1.05	1.30	1.65	2.15	3.15	4.35	5.70	8.30	15.40	25.00	40.00	50.00	
Couplings "	.29	.33	.42	.53	.72	1.00	1.45	1.80	2.60	4.50	6.50	11.25	14.25
" R. and L. . . . "	.37	.44	.55	.67	.92	1.30	1.85	2.35	3.35	5.75	8.50	—	
" Reducing "	.42	.53	.65	.87	1.20	1.75	2.15	3.10	5.40	8.00	14.00	18.00	
Bushings, Regular "	.26	.32	.42	.55	.82	1.15	1.65	2.35	3.50	5.15	7.10	9.00	
Plugs "	.28	.37	.45	.52	.67	.90	1.20	1.55	2.30	3.50	4.90	7.10	9.00
Caps "	.23	.29	.36	.47	.63	.89	1.25	1.75	2.60	4.50	6.15	8.85	11.00
Locknuts "	.29	.30	.39	.48	.60	.77	1.00	1.30	1.85	3.75	5.40	7.35	9.00
Return Bends, Close "	1.05	1.20	1.55	1.85	2.40	3.10	4.40	5.70	8.25	15.00	22.00	—	
" Open "	1.15	1.30	1.60	1.95	2.50	3.25	4.75	6.20	8.75	16.25	23.00	—	
"Y" Bends "	—	—	—	—	—	—	—	—	—	—	—	37.00	46.00
Unions "	.60	.72	1.02	1.26	1.68	2.28	3.30	3.90	6.00	10.80	16.80	30.00	39.60

Elbows tapped right and left-hand, add 25 per cent to list.

Right and left elbows, tees, crosses, reducers and bushings, reducing more than 2 sizes add 25 per cent to list.

EXTRA HEAVY BRASS FITTINGS

CAST IRON PATTERN

For Steam Working Pressures Up to 250 Pounds

90° ELBOW



Fig. 19141A

RIGHT AND LEFT
ELBOW

Fig. 19141B

STRAIGHT TEE



Fig. 19141E

REDUCING



Fig. 19141F

Size Inches	PRICE, EACH			
	90°		RIGHT AND LEFT	
Rough	Fin.	Rough	Fin.	
1/4	.33	.73	.40	.90
5/8	.45	.95	.55	1.15
1/2	.65	1.25	.75	1.50
3/4	1.00	1.75	1.20	2.10
1	1.50	2.50	1.80	3.00
1 1/4	2.25	3.50	2.60	4.10
1 1/2	3.00	4.50	3.50	5.35
2	4.50	6.25	5.25	7.50
2 1/2	8.00	10.50	9.00	12.00
3	11.25	14.75	13.00	17.25
3 1/2	16.00	23.50	—	—
4	22.00	31.00	—	—
4 1/2	27.00	38.00	—	—
5	35.00	48.00	—	—
6	45.00	60.00	—	—

PRICE, EACH

RIGHT AND LEFT

ELBOW

Size Inches	PRICE, EACH			
	STRAIGHT		REDUCING	
Rough	Fin.	Rough	Fin.	
1/4	.45	1.00	—	—
5/8	.60	1.25	.70	1.50
1 1/2	.90	1.70	1.05	2.05
3/4	1.35	2.35	1.55	2.80
1	2.00	3.35	2.30	4.00
1 1/4	3.00	4.65	3.50	5.50
1 1/2	4.00	6.00	4.50	7.00
2	6.00	8.35	6.75	9.75
2 1/2	10.75	14.00	12.00	16.00
3	15.00	19.75	17.00	23.00
3 1/2	22.00	32.00	25.00	37.00
4	30.00	42.00	35.00	50.00
4 1/2	36.00	51.00	40.00	58.00
5	46.00	64.00	51.00	70.00
6	60.00	80.00	66.00	90.00

Size

Inches

STRAIGHT

TEE

ELBOW

REDUCING

CROSS

ELBOW

REDUCING

CROSS

REDUCING ELBOW



Fig. 19141C



Fig. 19141D



Fig. 19141G



Fig. 19141H

REDUCING

ELBOW

45° ELBOW

REDUCING

ELBOW

REDUCING

CROSS

ELBOW

STANDARD CAST IRON FITTINGS

STRAIGHT ELBOWS



Fig. 8807A

REDUCING ELBOWS



Fig. 8807C

Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.	Size Inches	PRICE, EACH Black Galv.
1/4	.05	.10	3 1/2	1.05	2.10	3/8	.06
3/8	.05	.10	4	1.20	2.40	1/2	.07
1/2	.06	.12	4 1/2	1.75	3.50	5/8	.09
5/8	.08	.16	5	2.00	4.00	1	.12
1	.10	.21	6	2.75	5.50	1 1/4	.18
1 1/4	.16	.32	7	4.70	9.40	1 1/2	.23
1 1/2	.20	.40	8	6.75	13.50	2	.32
2	.28	.56	9	9.00	18.00	2 1/2	.60
2 1/2	.50	1.00	10	13.50	27.00	3	.85
3	.75	1.50	12	20.00	40.00	3 1/2	1.20

PITCHED STRAIGHT ELBOWS

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/2	.08	1 1/2	.25	3 1/2	1.30
3/4	.10	2	.35	4	1.50
1	.13	2 1/2	.65	...	...
1 1/4	.20	3	1.00	...	...

PITCHED REDUCING ELBOWS

3/4	.10	1 1/2	.25	3	1.00
1	.13	2	.35	3 1/2	1.30
1 1/4	.20	2 1/2	.65	...	...

RIGHT AND LEFT ELBOWS



Fig. 8807B

45° ELBOWS



Fig. 8807D

Size Inches	Price Black Each	Size Inches	Price Black Each	Size Inches	Price Black Each	Size Inches	Price Black Galv.
1/4	.06	1	.12	2 1/2	.60	3 1/2	1.25
3/8	.06	1 1/4	.18	3	.85	4	1.45
1/2	.07	1 1/2	.23	...	...	4 1/2	2.20
5/8	.09	2	.32	...	...	5	4.40
1	.12	...	...	3/4	.10	20	2.50
1 1/4	.19	...	...	1	.12	6	5.00
1 1/2	.24	...	...	1 1/4	.19	7	3.45
2	.48	...	...	2	.38	8	5.90
2 1/4	.68	...	...	2 1/4	.34	9	11.80
3	.90	...	...	3	.60	10	17.00
3 1/2	1.80	...	...	3 1/2	1.20	11	22.50
4	...	...	...	4	.85	12	34.00
5	...	...	...	5	.60	...	50.00

STANDARD CAST IRON FITTINGS

STRAIGHT TEES



Fig. 8779A

SIDE OUTLET ELBOWS



Fig. 8779D

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Black	SIZE In.
$\frac{1}{4}$	.08	.16	$3\frac{1}{2}$	1.50
$\frac{3}{8}$	.08	.16	4	1.75
$\frac{1}{2}$	.09	.18	$4\frac{1}{2}$	2.55
$\frac{3}{4}$	.12	.24	5	3.00
1	.15	.30	6	4.00
$1\frac{1}{4}$	.23	.46	7	6.80
$1\frac{1}{2}$	.29	.58	8	9.75
2	.41	.82	9	13.00
$2\frac{1}{2}$	.73	1.46	10	19.50
3	1.10	2.20	12	29.00

REDUCING TEES



Fig. 8779B



Fig. 8779C

REDUCING

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
$\frac{1}{2}$	.18	2	.84	$4\frac{1}{2}$	5.25
$\frac{3}{4}$	.24	$2\frac{1}{2}$	1.50	5	6.00
1	.30	3	2.25	6	8.25
$1\frac{1}{4}$	.48	$3\frac{1}{2}$	3.15	...	...
$1\frac{1}{2}$	.60	4	3.60	...	...
$\frac{1}{2}$	.21	2	.96	$4\frac{1}{2}$	6.00
$\frac{3}{4}$	.28	$2\frac{1}{2}$	1.70	5	6.90
1	.35	3	2.58	6	9.45
$1\frac{1}{4}$	.55	$3\frac{1}{2}$	3.60	...	...
$1\frac{1}{2}$	.68	4	4.00	...	...

SIDE OUTLET TEES



Fig. 8779E

Size In.	PRICE, EACH Black	SIZE In.	PRICE, EACH Black	SIZE In.
$\frac{3}{8}$	.09	.18	4	2.00
$\frac{1}{2}$	.10	.20	$4\frac{1}{2}$	2.95
$\frac{3}{4}$	.14	.28	5	3.50
1	.17	.34	6	4.60
$1\frac{1}{4}$	.27	.54	7	7.80
$1\frac{1}{2}$	.33	.66	8	11.25
2	.47	.94	9	15.00
$2\frac{1}{2}$	.83	1.66	10	22.50
3	1.25	2.50	12	33.50
$3\frac{1}{2}$	1.75	3.50	...	67.00

REDUCING

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
$\frac{1}{2}$	.27	2	1.25	$4\frac{1}{2}$	7.65
$\frac{3}{4}$	.36	$2\frac{1}{2}$	2.25	5	9.00
1	.45	3	3.25	6	12.00
$1\frac{1}{4}$	.70	$3\frac{1}{2}$	4.50	...	...
$1\frac{1}{2}$	.90	4	5.25	...	...
$\frac{1}{2}$	.31	2	1.45	$4\frac{1}{2}$	8.80
$\frac{3}{4}$	.42	$2\frac{1}{2}$	2.58	5	10.35
1	.52	3	3.73	6	13.80
$1\frac{1}{4}$	.80	$3\frac{1}{2}$	5.15	...	...
$1\frac{1}{2}$	1.00	4	6.00	...	...

In describing reducing tees, name the size of run first and then the outlet or side.

STANDARD CAST IRON FITTINGS

CROSSES



Fig. 8805A



Fig. 8805B

STRAIGHT SIZES

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galv.		Black	Galv.		Black	Galv.
3/8	.15	.30	2 1/2	1.30	2.60	7	12.25	24.50
1/2	.16	.32	3	2.00	4.00	8	17.50	35.00
3/4	.22	.44	3 1/2	2.70	5.40	9	23.50	47.00
1	.27	.54	4	3.15	6.30	10	35.00	70.00
1 1/4	.42	.84	4 1/2	4.60	9.20	12	52.50	105.00
1 1/2	.53	1.06	5	5.50	11.00	...	.....	.....
2	.75	1.50	6	7.25	14.50	...	.....	.....
REDUCING								
1/2	.18	.36	2 1/2	1.45	2.90	6	8.00	16.00
3/4	.25	.50	3	2.20	4.40	7	13.50	27.00
1	.30	.60	3 1/2	3.00	6.00	8	19.25	38.50
1 1/4	.46	.92	4	3.50	7.00	9	26.00	52.00
1 1/2	.60	1.20	4 1/2	5.10	10.20	10	38.50	77.00
2	.83	1.66	5	6.00	12.00	12	58.00	116.00

Y BRANCHES STRAIGHT SIZES



Fig. 8805C

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galv.		Black	Galv.		Black	Galv.
1/2	.20	.40	2 1/2	1.66	3.32	6	9.20	18.40
3/4	.28	.56	3	2.50	5.00	7	15.60	31.20
1	.34	.68	3 1/2	3.50	7.00	8	22.50	45.00
1 1/4	.54	1.08	4	4.00	8.00	10	45.00	90.00
1 1/2	.66	1.32	4 1/2	5.90	11.80	12	67.00	134.00
2	.94	1.88	5	7.00	14.00	...	.....	.....
REDUCING								
1/2	.23	.46	2 1/2	1.90	3.80	6	10.60	21.20
3/4	.33	.66	3	2.90	5.80	7	18.00	36.00
1	.40	.80	3 1/2	4.00	8.00	8	26.00	52.00
1 1/4	.62	1.24	4	4.60	9.20	10	51.75	103.50
1 1/2	.76	1.52	4 1/2	6.80	13.60	12	77.00	154.00
2	1.08	2.16	5	8.00	16.00	...	.....	.....

STANDARD CAST IRON FITTINGS

RETURN BENDS

CLOSE PATTERN



Fig. 3998A

OPEN PATTERN



Fig. 3998B

WIDE PATTERN



Fig. 3998C

Close pattern return bends will not make up parallel coils, as the distance, center to center, of two adjacent bends is greater than the center to center of openings of a single bend.

CLOSE PATTERN

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4
Center to Center.....	"	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{4}$	6
Price, R. H., Black.....	each	.18	.20	.22	.28	.40	.57	1.20	1.70	5.00
" " Galv.....	"	.36	.40	.44	.56	.80	1.14	2.40	3.40	10.00
" R. & L., Black.....	"	.21	.23	.26	.33	.46	.66	1.40	1.95	5.25
" L. H., Black.....	"	.21	.23	.26	.33	.46	.66	1.40	1.95	5.25

CLOSE PATTERN PITCHED**SUITABLE FOR COILS AS PER TABLE BELOW**

Size.....	inches	1	1	1	1	1	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$
Length of Coil.....	feet	3	4	5	6	8	4	5	6
Price, R. H.....	each	.26	.26	.26	.26	.26	.33	.33	.33

All right and left pitched return bends are made to order. One-inch return bends for coils longer than 8 feet are tapped straight. Pitched return bends have length of coil marked on them.

OPEN PATTERN

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4
Center to Center.....	"	$1\frac{1}{8}$	$2\frac{3}{8}$	3	$3\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{2}$	$7\frac{1}{2}$
Price, R. H., Black.....	each	.26	.30	.40	.55	.80	1.35	2.20	6.50
" " Galv.....	"	.52	.60	.80	1.10	1.60	2.70	4.40	10.00

" R. & L. Black.....

WITH BACK OUTLET—NOT ILLUSTRATED

Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Center to Center.....	"	$1\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{4}$
Price, Right-hand, Black.....	each	.38	.42	.60	.80	1.15	2.00	3.00
" " Galvanized "	"	.76	.84	1.20	1.60	2.30	4.00	6.00

" Right and Left, Black.....

WIDE PATTERN

Size.....	inches	1	1	1	1	1	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{2}$
Center to Center.....	"	3	4	5	6	8	4	6	$4\frac{7}{8}$
Price, Black.....	each	.45	.50	.60	.75	1.00	1.00	1.25	1.30
" Galvanized.....	"	.80	.90	1.10	1.30	1.60	1.75	2.00	2.30

Size.....	inches	$1\frac{1}{2}$	$1\frac{1}{2}$	2	2	2	2	4	...
Center to Center.....	"	6	8	$4\frac{7}{8}$	6	7	8	11	...
Price, Black.....	each	1.60	2.00	1.75	2.00	3.00	3.50	7.50	...

" Galvanized.....

" Galvanized.....

STANDARD CAST IRON FITTINGS
REDUCERS


Fig. 8723A

Size In.	PRICE, Black	PRICE, Galv.	Size In.	PRICE, Black	PRICE, Galv.
$\frac{3}{4}$	.10	.20	$4\frac{1}{2}$	1.85	3.70
1	.16	.32	5	2.00	4.00
$1\frac{1}{4}$	.22	.44	6	2.70	5.40
$1\frac{1}{2}$	.28	.56	7	5.35	10.70
2	.43	.86	8	6.75	13.50
$2\frac{1}{2}$	.60	1.20	9	8.35	16.70
3	.80	1.60	10	10.00	20.00
$3\frac{1}{2}$	1.00	2.00	12	15.00	30.00
4	1.35	2.70	—	—	—

CAPS

Fig. 8723B

Size In.	PRICE, Black	PRICE, Galv.	Size In.	PRICE, Black	PRICE, Galv.
$\frac{3}{4}$	.05	.10	$4\frac{1}{2}$	1.05	2.10
1	.08	.16	5	1.20	2.40
$1\frac{1}{4}$	.14	.28	6	1.55	3.10
$1\frac{1}{2}$	.20	.40	7	2.50	5.00
2	.26	.52	8	2.85	5.70
$2\frac{1}{2}$	.40	.80	9	4.75	9.50
3	.54	1.08	10	5.50	11.00
$3\frac{1}{2}$	.75	1.50	12	7.00	14.00
4	.87	1.74	—	—	—

BUSHINGS

Fig. 8723C

Reducing two or more sizes up to $2\frac{1}{2}$ inches inclusive. Reducing one or more sizes, 3 inches and up.

Size In.	PRICE, Black	SIZE IN.	PRICE, Black	PRICE, Galv.
$\frac{3}{8}$	.04	.08	.50	1.00
$\frac{1}{2}$	.04	.08	$4\frac{1}{2}$	.75
$\frac{3}{4}$	.05	.10	5	1.85
1	.06	.12	6	1.25
$1\frac{1}{4}$	.07	.14	7	1.87
$1\frac{1}{2}$	.09	.18	8	2.75
2	.14	.28	9	3.25
$2\frac{1}{2}$	.21	.42	10	3.75
3	.30	.60	12	5.00
$3\frac{1}{2}$	.40	.80	—	—



Fig. 8723D

Size In.	PRICE, Black	PRICE, Galv.	Size In.	PRICE, Black	PRICE, Galv.
$\frac{1}{8}$	.02	—	$3\frac{1}{2}$	.38	.76
$\frac{1}{4}$	.02	.04	4	.42	.84
$\frac{3}{8}$	.02	.04	$4\frac{1}{2}$	.65	1.30
$\frac{1}{2}$	.02	.04	5	.88	1.75
$\frac{3}{4}$	.03	.06	6	1.20	2.40
1	.04	.08	7	1.85	3.70
$1\frac{1}{4}$	.05	.10	8	2.75	5.50
$1\frac{1}{2}$	.07	.14	9	3.25	6.50
2	.10	.20	10	3.75	7.50
$2\frac{1}{2}$	.18	.36	12	5.00	10.00
3	.25	.50	—	—	—

COUNTERSUNK PLUGS

Fig. 8723E

Size In.	PRICE, Solid Black	PRICE, Countersunk Black	Size In.	PRICE, Solid Black	PRICE, Countersunk Black
$\frac{1}{8}$	—	—	$3\frac{1}{2}$	.57	.92
$\frac{1}{4}$	.04	—	4	.63	1.10
$\frac{3}{8}$	.04	—	$4\frac{1}{2}$	1.00	—
$\frac{1}{2}$	.04	.04	5	1.35	2.00
$\frac{3}{4}$	.06	.06	6	1.80	3.50
1	.08	.08	7	2.80	—
$1\frac{1}{4}$	.09	.09	8	4.15	—
$1\frac{1}{2}$	.11	.11	9	5.00	—
2	.15	.15	10	5.75	—
$2\frac{1}{2}$	.27	.30	12	7.50	—
3	.38	.40	—	—	—

LOCKNUTS

Fig. 8723F

Size In.	PRICE, Each Black	Size In.	PRICE, Each Black	
2	.25	.50	6	1.30
$2\frac{1}{2}$	.27	.54	7	1.70
3	.34	.68	8	2.35
$3\frac{1}{2}$	.47	.94	9	2.70
4	.64	1.28	10	3.00
$4\frac{1}{2}$	.85	1.70	12	4.00
5	.90	1.80	—	—

Suitable for steam working pressures up to 125 pounds, and water working pressures of 175 pounds.

CAST IRON FITTINGS



Fig. 41549A



Fig. 41549B



Fig. 41549C



Fig. 41549D

ECCENTRIC REDUCING COUPLINGS

Size Inches	Price Each	Size Inches	Price Each
1 1/4	.55	4	4.00
1 1/2	.72	4 1/2	5.00
2	1.00	5	6.00
2 1/2	1.50	6	8.00
3	2.40	7	9.00
3 1/2	3.00	8	11.00

ECCENTRIC BUSHINGS

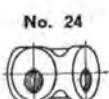
Reducing two or more sizes.

Size Inches	PRICE, EACH	TO OFFSET, INCHES		
		4	6	8
3/4	.45	.67	.90	
1	.70	1.05	1.40	
1 1/4	1.00	1.50	2.00	
1 1/2	1.20	1.80	2.40	
2	1.80	2.70	3.60	
2 1/2	3.00	4.50	6.00	
3	4.00	6.00	8.00	
3 1/2	5.00	7.50	10.00	
4	6.00	9.00	12.00	
5	8.00	12.00	16.00	
6	10.00	15.00	20.00	

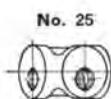
R. AND L. COUPLINGS

Size Inches	Price Each	Size Inches	Price Each	Size Inches	PRICE, EACH	Size Inches	PRICE, EACH	
					Black	Galv.	Black	Galv.
1 1/4	.22	5	1.85	1 1/4	.07	.14	1 1/2	.30
1 1/2	.25	6	2.50	3/8	.08	.16	2	.50
2	.27	7	3.75	1/2	.11	.22	2 1/2	.85
2 1/2	.42	8	5.50	3/4	.15	.30	3	1.20
3	.60	9	6.50	1	.20	.40	3 1/2	1.50
3 1/2	.80	10	7.50	1 1/4	.25	.50	4	2.00
4	1.00	12	10.00					
4 1/2	1.50							

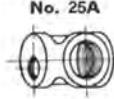
ECCENTRIC TEES



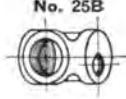
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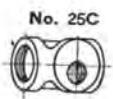
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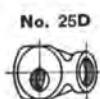
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No. 25B



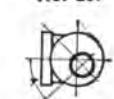
No. 25C



No. 25D



No. 25E



No. 25F



No. 25G



No. 25H

Fig. 41549E

These Eccentric Tees are designed to prevent the accumulation of water from condensation.

The above sketches cover nearly every requirement and, in ordering, use the number of the fitting desired. If a fitting, not covered by the above illustrations, is desired, submit sketch.

Prices upon application.

BRANCH TEES

No. 1, for Circulation



Fig. 21A.

No. 2, for Circulation



Fig. 21B

No. 3, for Box Coils



Fig. 21C

PRICE, EACH

No. of Branches	1-INCH			1½-INCH			1¾-INCH			2-INCH		
	2½ Inches Center to Center	3 Inches Center to Center	3½ Inches Center to Center	2½ or 2	2½ or 2½	3½ or 3	2	2½ or 3	3½	2	2½ or 3	3½
2	.90	1.00	1.15	1.30	....	....	2.10	....	....	4.10	....	....
3	1.05	1.15	1.35	1.65	1.90	2.40	2.70	3.45	3.80	5.25	5.75	6.25
4	1.15	1.30	1.60	2.00	2.40	2.85	3.35	4.15	4.60	6.40	7.00	7.75
5	1.35	1.45	1.85	2.40	2.90	3.55	4.00	5.00	5.50	7.65	8.50	9.25
6	1.60	1.75	2.10	2.80	3.30	3.95	4.65	5.75	6.25	8.80	9.75	10.75
7	1.90	2.20	2.45	3.20	3.90	4.20	5.25	6.50	7.25	10.60	11.75	13.00
8	2.20	2.45	2.75	3.60	4.50	4.95	5.85	7.00	7.75	11.50	12.75	14.00
9	2.65	2.90	3.40	4.30	5.25	6.15	6.50	8.25	9.00	12.25	13.50	15.00
10	....	3.30	4.00	4.80	5.85	6.85	7.60	9.25	10.00	13.50	15.00	16.50
11	....	4.50	4.80	5.00	6.25	7.25	8.00	9.75	10.75	....	....	....
12	....	4.75	5.10	5.25	6.50	7.65	8.50	10.50	11.50	....	....	....
13	....	5.50	6.00	6.00	7.00	8.25	....	....	....	....	....	....
14	....	7.00	7.25	6.75	7.75	9.00	....	....	....	....	....	....
15	....	7.50	7.75	7.50	8.50	9.75	....	....	....	....	....	....
16	....	8.00	8.25	8.50	9.50	10.75	....	....	....	....	....	....

Back or side outlets charged as additional front outlets.

All openings in branch tees for circulation are tapped right-hand.

Branch tees for box coils are always tapped left-hand in branches and right-hand in back inlet.

The run and back opening of branch tees are tapped the same size as branches, unless otherwise ordered.

1-inch branch tees, 1-inch or 1½-inch run, are 1¼ inches inside diameter.

1-inch branch tees, 1½-inch or 2-inch run, are 2¼ inches inside diameter.

1¼-inch branch tees are all 2½ inches inside diameter.

1½-inch branch tees are all 2¾ inches inside diameter.

2-inch branch tees are all 3½ inches inside diameter.

Always order branch tees by size and number.

CAST IRON LONG TURN FITTINGS

For Steam Working Pressures up to 125 Pounds
For Water Working Pressures up to 150 Pounds

No. 3 TEE



Fig. 34681A

No. 5 TEE



Fig. 34681B

No. 4 CROSS



Fig. 34681C

No. 3 TEES

Size.....	inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, Black.....	each	.48	.60	.82	1.20	1.80	3.40	4.90	5.25
Size.....	inches	4 1/2	5	6	7	8	9	10	12
Price, Black.....	each	8.25	9.75	13.25	19.50	25.50	38.00	45.00	60.00

For prices of reducing sizes, bushed in sand, add 50 per cent to those above. For galvanized fittings, add 100 per cent to prices given above.

No. 5 TEES

Size.....	inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, Black.....	each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Size.....	inches	4 1/2	5	6	7	8	9	10	12
Price, Black.....	each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00

For prices of reducing sizes, bushed in sand, add 50 per cent to those above. For galvanized fittings, add 100 per cent to prices given above.

CROSSES

Size.....	inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, Black.....	each	.85	1.10	1.50	2.15	3.20	6.00	8.75	9.50
Size.....	inches	4 1/2	5	6	7	8	9	10	12
Price, Black.....	each	15.00	17.50	24.00	35.00	45.00	68.00	80.00	107.00

For prices of galvanized crosses add 100 per cent to those above. A complete list of reducing fittings will be furnished on application.

No. 1 ELBOW



Fig. 34681D

No. 2 ELBOW



Fig. 34681E

Size.....	inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, No. 1, Black.....	each	.32	.40	.55	.80	1.20	2.25	3.25	3.50
" " 2 " "	each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Size.....	inches	4 1/2	5	6	7	8	9	10	12
Price, No. 1, Black.....	each	5.50	6.50	8.75	13.00	17.00	25.50	30.00	40.00
" " 2 " "	each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00

For price of galvanized, double above list.

CAST IRON FITTINGS

EXTRA HEAVY—For 250 Pounds Working Pressure

ELBOWS



Fig. 8848A

45° ELBOW



Fig. 8848B

CROSSES



Fig. 8848D

Size Inches	PRICE, EACH		
	Elbows	Reducing Elbows	45° Elbows
1/2	.25	.35	.35
3/4	.30	.40	.40
1	.35	.45	.44
1 1/4	.45	.55	.55
1 1/2	.60	.75	.70
2	.75	.95	.90
2 1/2	1.25	1.55	1.50
3	2.00	2.50	2.50
3 1/2	2.75	3.40	3.50
4	3.50	4.40	4.50
4 1/2	4.25	5.30	5.50
5	5.50	6.80	6.75
6	8.00	10.00	9.75
7	12.00	15.00	14.50
8	17.00	21.00	21.00
9	25.00	31.00	31.00
10	28.00	35.00	34.00
12	40.00	50.00	48.00

TEES



Fig. 8848C

Size Inches	PRICE, EACH			PRICE, EACH		
	Reducing Tees	Tees	Size Inches	Reducing Tees	Tees	Size Inches
1/2	.40	.55	4	5.50	6.85	
3/4	.45	.60	4 1/2	6.75	8.50	
1	.55	.70	5	8.25	10.25	
1 1/4	.70	.90	6	12.00	15.00	
1 1/2	.90	1.15	7	18.00	22.50	
2	1.15	1.40	8	25.00	31.00	
2 1/2	1.80	2.25	9	35.00	44.00	
3	3.00	3.75	10	42.00	52.00	
3 1/2	4.25	5.30	12	60.00	75.00	

Y BRANCHES



Fig. 8848E

Size Inches	PRICE, EACH			PRICE, EACH		
	Reducing Y Branches	Y Branches	Size Inches	Reducing Y Branches	Y Branches	Size Inches
1	1.10	1.38	4 1/2	13.50	16.88	
1 1/4	1.35	1.75	5	16.50	20.63	
1 1/2	1.80	2.25	6	24.00	30.00	
2	2.25	2.88	7	36.00	45.00	
2 1/2	3.75	4.50	8	50.00	62.50	
3	6.00	7.50	9	72.00	90.00	
3 1/2	8.25	10.63	10	84.00	105.00	
4	11.00	13.75	12	120.00	150.00	

For galvanized extra heavy fittings, double all lists shown on page.

FLANGE UNIONS

Cast Iron, Standard



Fig. 40839A

Cast Iron, Extra Heavy



Fig. 40839B

STANDARD

For 125 Pounds Working Pressure

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$
Diam. of Flanges "	$2\frac{5}{6}$	$3\frac{1}{4}$	$3\frac{3}{8}$	$3\frac{7}{8}$	$4\frac{1}{2}$	$5\frac{1}{8}$	$5\frac{7}{8}$	$6\frac{3}{4}$	7	8	$8\frac{3}{8}$
No. of Bolts in Each ..	3	3	3	4	4	4	4	4	4	5	5
Price, Black..ea.	.40	.46	.52	.64	.78	1.00	1.25	1.50	1.80	2.10	2.70
" Galvanized.."	.80	.92	1.04	1.28	1.56	2.00	2.50	3.00	3.60	4.20	5.40
Size.....inches	5	6	7	8	9	10	12	14	15	16	....
Diam. of Flanges "	$9\frac{5}{6}$	11	12	$13\frac{3}{8}$	14	$15\frac{1}{2}$	18	22	22	23	....
No. of Bolts in Each ..	5	6	7	7	8	10	12	14	14	16	....
Price, Black..ea.	3.15	3.95	5.50	7.00	10.00	11.50	16.00	28.00	35.00	60.00	....
" Galvanized.."	6.30	7.90	11.00	14.00	20.00	23.00	32.00	56.00	70.00	120.00	....

EXTRA HEAVY

For 250 Pounds Working Pressure

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$
Diameter of Flanges "	3	$3\frac{1}{4}$	$3\frac{5}{8}$	$4\frac{1}{16}$	$4\frac{5}{8}$	$5\frac{3}{8}$	6	$6\frac{3}{8}$	6	$6\frac{3}{8}$	....
No. of Bolts in Each ..	3	4	4	4	4	4	5	5	5	6	....
Price.....each	.60	.70	.80	1.00	1.15	1.50	1.90	2.25	2.25	2.25	....
Size.....inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	....	....	....	....
Diameter of Flanges "	$7\frac{7}{8}$	8	$8\frac{3}{4}$	$9\frac{3}{8}$	$10\frac{3}{4}$	12	$13\frac{3}{8}$	....	....	....	....
No. of Bolts in Each ..	6	7	8	8	9	10	10	....	....	....	....
Price.....each	2.70	3.15	4.00	4.75	6.00	8.25	10.50	....	....	....	....

JEFFERSON—STYLE D, MALLEABLE IRON

For 500 Pounds Steam Working Pressure



Fig. 40839C

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Price, Black..each	.55	.60	.80	1.20	1.60	2.00	3.20	4.80	6.00
" Galv.."	.75	.80	1.10	1.60	2.15	2.70	4.30	6.50	8.10
Size.....inches	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Price, Black..each	7.50	8.75	10.00	12.50	15.00	18.00	21.60	28.80	46.00
" Galv.."	10.15	11.80	13.50	16.90	20.25	24.30	29.15	38.90	62.00

CAST IRON FITTINGS

FLANGES



Fig. 3706A



Fig. 3706B



Fig. 3706C

COMMON, NOT FACED

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
3/4x4	.22	3 x 7	.62	5x12	2.20	8x15	4.00
3/4x5	.30	3 x 7 1/2	.75	5x12 1/2	2.20	8x16	5.00
1 x 5	.30	3 x 8	.90	6x10	1.50	9x15	4.00
1 x 6	.42	3 x 9	1.15	6x11	1.75	9x16	5.00
1 1/4x4 1/2	.25	3 1/2x 8	.90	6x12	2.20	9x17	5.75
1 1/4x5	.30	3 1/2x 8 1/2	1.00	6x12 1/2	2.20	10x16	5.00
1 1/4x6	.40	3 1/2x 9	1.15	6x13	2.80	10x17	5.75
1 1/2x5	.30	5 1/2x10	1.50	6x13 1/2	2.80	10x18	7.00
1 1/2x6	.40	4 x 8	.90	6x14	3.25	10x19	7.50
2 x 6	.42	4 x 8 1/2	1.00	7x12	2.20	12x18	7.00
2 x 6 1/2	.50	4 x 9	1.15	7x12 1/2	2.20	12x19	7.50
2 x 7	.62	4 x 10	1.50	7x13	2.80	12x20	8.50
2 x 8	.90	4 1/2x 9	1.15	7x13 1/2	2.80	14x20	8.50
2 1/2x6	.42	4 1/2x 9 1/4	1.25	7x14	3.25	14x21	9.50
2 1/2x6 1/2	.50	4 1/2x10	1.50	7x15	4.00	15x21	9.50
2 1/2x7	.62	4 1/2x11	1.75	8x13	2.80	15x22 1/4	14.00
2 1/2x8	.90	5 x 10	1.50	8x13 1/2	2.80	16x23 1/2	18.00
3 x 6 1/2	.50	5 x 11	1.75	8x14	3.25	.....	....

FLOOR, NOT FACED, COUNTERSUNK SCREW HOLE

Size.....	inches	3/8x3	1/2x3 1/2	3/4x3 1/2	1x4	1 1/4x4	1 1/2x4 1/2	2x5 1/2
Price.....	each	.10	.15	.15	.16	.16	.22	.35

All floor flanges are drilled for screw. Galvanized take double the list.

CIRCULAR

Pipe.....	.....	inches	1 1/2	2	2 1/2	3	4	5	6	7	8	9	10	12
Diameter Flange.....	"		6	7	8	9	9	11	12	13	14	17	18	20

These flanges being made to order, it is always necessary to give the circle they are to fit.

FLANGED FITTINGS

ELBOW



Fig. 2244A

45° ELBOW



Fig. 2244B

TEE



Fig. 2244C

REDUCING TEE

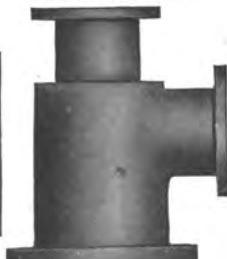


Fig. 2244D

SINGLE SWEEP
TEE



Fig. 2244E

REDUCING SINGLE
SWEEP TEE



Fig. 2244F

DOUBLE SWEEP
TEE



Fig. 2244G

CROSS



Fig. 2244H

REDUCING CROSS



Fig. 2244J

BASE ELBOW



Fig. 2244K

STANDARD FLANGED FITTINGS
 PRICE, EACH—For 125 Pounds Working Pressure

Size Inches	ELBOWS		45° ELBOWS		TEES		REDUCING TEES		SINGLE AND DOUBLE SWEEP TEES		RED. SINGLE AND DRILL. SWEEP TEES	
	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled
1 1/4	3.00	3.60	3.30	3.90	4.35	5.25	.....	.....	.....	.....	.....	.....
1 1/2	3.00	3.60	3.30	3.90	4.35	5.25	5.00	5.90	.....	.....	5.75	6.65
2	3.00	3.60	3.30	3.90	4.35	5.25	5.00	5.90	5.00	5.90	6.00	6.90
2 1/2	3.15	3.75	3.50	4.10	4.55	5.45	5.25	6.15	5.25	6.15	6.00	6.90
3	3.45	4.15	3.80	4.50	5.00	6.10	5.75	6.85	5.75	6.85	6.60	7.70
3 1/2	4.05	4.90	4.50	5.35	5.85	7.10	6.75	8.00	6.75	8.00	7.75	9.00
4	4.50	5.50	5.00	6.00	6.50	8.00	7.50	9.00	7.50	9.00	8.65	10.15
4 1/2	5.50	6.50	6.00	7.00	8.00	9.50	9.25	10.75	9.25	10.75	10.60	12.10
5	6.25	7.25	6.90	7.90	9.10	10.60	10.50	12.00	10.50	12.00	12.00	13.50
6	7.60	8.90	8.35	9.65	11.00	12.95	12.65	14.60	12.65	14.60	14.50	16.45
7	10.50	12.00	11.00	12.50	15.25	17.50	17.50	19.75	17.50	19.75	20.00	22.25
8	12.00	13.60	12.60	14.20	17.40	19.80	20.00	22.40	20.00	22.40	23.00	25.40
9	17.00	19.25	17.75	20.00	24.65	28.00	28.50	31.85	28.50	31.85	32.75	36.10
10	19.00	21.70	20.00	22.70	27.50	31.50	31.50	35.50	31.50	35.50	36.00	40.00
12	28.00	31.00	29.50	32.50	40.50	45.00	46.50	51.00	46.50	51.00	53.50	58.00
14	41.50	45.25	41.50	45.25	60.00	65.50	69.00	74.50	69.00	74.50	79.00	84.50
15	47.00	51.50	47.00	51.50	68.00	74.75	78.00	84.75	78.00	84.75	90.00	96.75
16	54.50	59.50	54.50	59.50	79.00	86.50	91.00	98.50	91.00	98.50	105.00	112.50
18	71.00	77.00	71.00	77.00	103.00	112.00	118.00	127.00	118.00	127.00	135.00	144.00
20	90.00	97.00	90.00	97.00	130.00	140.00	150.00	160.00	150.00	160.00	173.00	183.00
22	113.00	122.00	113.00	122.00	164.00	177.00	189.00	202.00	189.00	202.00	217.00	230.00
24	140.00	150.00	140.00	150.00	203.00	218.00	233.00	248.00	233.00	248.00	268.00	283.00

Size Inches	CROSSES AND LATERALS		RED. CROSSES AND LATERALS		LONG RADIUS ELBOWS		BASE ELBOWS		RED. ELBOWS AND REDUCERS		Facing and Drilling Base Flanges of Base Elbows	
	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Facing only	Drilling Base Flanges of Base Elbows
1 1/4	6.75	7.95	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2	6.75	7.95	6.75	7.95	.....	.....	.....	.....	.....	.....	.....	.....
2	6.75	7.95	7.75	8.95	5.00	5.90	.....	.....	.....	.....	.....	.....
2 1/2	6.95	8.15	8.00	9.20	5.25	6.15	.....	.....	.....	.....	.....	.....
3	7.65	9.05	8.75	10.15	5.75	6.85	.....	.....	6.90	7.60	.....	.....
3 1/2	9.00	10.70	10.35	12.05	6.75	8.00	.....	.....	8.10	8.95	.....	.....
4	10.00	12.00	11.50	13.50	7.50	9.00	9.00	10.00	9.00	10.00	10.00	3.00
4 1/2	12.00	14.00	13.75	15.75	9.25	10.75	11.00	12.00	11.00	12.00	12.00	3.00
5	13.75	15.75	15.75	17.75	10.50	12.00	12.50	13.50	12.50	13.50	13.50	3.50
6	16.75	19.25	19.25	21.75	12.65	14.60	15.25	16.55	15.25	16.55	16.55	3.50
7	23.00	26.00	26.50	29.50	17.50	19.75	21.00	22.50	21.00	22.50	22.50	3.50
8	26.50	29.75	30.50	33.75	20.00	22.40	24.00	25.60	24.00	25.60	25.60	5.00
9	37.50	42.00	43.00	47.50	28.50	31.85	34.00	36.25	34.00	36.25	36.25	5.00
10	42.00	47.50	48.00	53.50	31.50	35.50	38.00	40.70	38.00	40.70	40.70	5.00
12	61.50	67.50	71.00	77.00	46.50	51.00	56.00	59.00	56.00	59.00	59.00	7.50
14	91.00	98.50	105.00	112.50	69.00	74.50	70.00	73.75	70.00	73.75	73.75	7.50
15	103.00	112.00	118.00	127.00	78.00	84.75	80.00	84.50	80.00	84.50	84.50	7.50
16	120.00	130.00	138.00	148.00	91.00	98.50	90.00	95.00	90.00	95.00	95.00	7.50
18	157.00	169.00	180.00	192.00	118.00	127.00	105.00	111.00	*105.00	*111.00	12.00	
20	198.00	212.00	228.00	242.00	150.00	160.00	.....	.....	*120.00	*127.00	12.00	
22	248.00	266.00	285.00	303.00	.....	.....	.....	.....	.....	.....	.....
24	310.00	330.00	355.00	375.00	.....	.....	.....	.....	.....	.....	.....

Flanged fittings will always be furnished faced only, unless otherwise ordered.

Reducing single sweep tees made to order only. Single sweep tees with the side opening larger than the run not made. Reducing double sweep tees made to order only. Reducing crosses made to order only. Reducing laterals made to order only. *Ells only.

EXTRA HEAVY FLANGED FITTINGS

PRICE, EACH—For 250 Pounds Steam Working Pressures

Size Inches	ELBOWS		45° ELBOWS		TEES		REDUCING TEES		SINGLE AND DOUBLE SWEEP TEES		RED. SINGLE AND DBLE. SWEEP TEEs	
	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled
1 1/4	4.50	5.40	5.00	5.90	6.50	7.85	.....	.....	.....	.....	.....	.....
1 1/2	4.50	5.40	5.00	5.90	6.50	7.85	7.50	8.85	.....	.....	.....	.....
2	4.50	5.40	5.00	5.90	6.50	7.85	7.50	8.85	7.50	8.85	.....	.....
2 1/2	4.75	5.65	5.25	6.15	6.90	8.25	8.00	9.35	8.00	9.35	9.15	10.50
3	5.15	6.25	5.65	6.75	7.50	9.15	8.60	10.25	8.60	10.25	9.90	11.55
3 1/2	6.10	7.35	6.75	8.00	8.90	10.80	10.25	12.15	10.25	12.15	11.75	13.65
4	6.75	8.25	7.50	9.00	9.75	12.00	11.25	13.50	11.25	13.50	13.00	15.25
4 1/2	8.25	9.75	9.00	10.50	12.00	14.25	13.75	16.00	13.75	16.00	15.75	18.00
5	9.35	10.85	10.35	11.85	13.50	15.75	15.50	17.75	15.50	17.75	17.85	20.10
6	11.40	13.40	12.50	14.50	16.50	19.50	19.00	22.00	19.00	22.00	22.00	25.00
7	15.75	18.00	16.50	18.75	23.00	26.35	26.50	29.85	26.50	29.85	30.50	33.85
8	18.00	20.50	19.00	21.50	26.00	29.75	30.00	33.75	30.00	33.75	34.50	38.25
9	25.50	28.85	26.75	30.10	37.00	42.00	42.50	47.50	42.50	47.50	49.00	54.00
10	28.50	32.50	30.00	34.00	41.50	47.50	47.75	53.75	47.75	53.75	55.00	61.00
12	42.00	46.50	44.00	48.50	61.00	67.75	70.00	76.75	70.00	76.75	80.00	86.75
14	62.00	67.50	62.00	67.50	90.00	98.25	103.50	111.75	103.50	111.75	119.00	127.25
15	70.00	77.00	70.00	77.00	102.00	112.00	117.00	127.00	117.00	127.00	135.00	145.00
16	82.00	90.00	82.00	90.00	119.00	131.00	137.00	149.00	137.00	149.00	158.00	170.00
18	106.00	115.00	106.00	115.00	154.00	168.00	177.00	191.00	177.00	191.00	204.00	218.00
20	135.00	145.00	135.00	145.00	195.00	210.00	225.00	240.00	225.00	240.00	260.00	275.00
22	170.00	183.00	170.00	183.00	247.00	267.00	285.00	305.00	285.00	305.00	327.00	347.00
24	210.00	225.00	210.00	225.00	305.00	328.00	350.00	373.00	350.00	373.00	402.00	425.00

Size Inches	CROSSES AND LATERALS		RED. CROSSES AND LATERALS		LONG RADIUS ELBOWS		BASE ELBOWS		RED. ELBOWS AND REDUCERS		Facing and Drilling Base Flanges of Base Elbows	
	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled	Faced only	Faced and Drilled
1 1/4	10.00	11.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2	10.00	11.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	10.00	11.80	11.50	13.30	7.50	8.85	.....	.....	9.00	9.90	.....	.....
2 1/2	10.50	12.30	12.00	13.80	8.00	9.35	.....	.....	9.50	10.40	.....	.....
3	11.50	13.75	13.25	15.50	8.60	10.25	.....	.....	10.25	11.35	.....	.....
3 1/2	13.50	16.00	15.50	18.00	10.25	12.15	.....	.....	12.25	13.50	.....	.....
4	15.00	18.00	17.00	20.00	11.25	13.50	13.50	15.00	13.50	15.00	15.00	4.50
4 1/2	18.00	21.00	21.00	24.00	13.75	16.00	16.50	18.00	16.50	18.00	18.00	4.50
5	20.50	23.50	23.50	26.50	15.50	17.75	18.75	20.25	18.75	20.25	5.25	5.25
6	25.00	29.00	29.00	33.00	19.00	22.00	22.75	24.75	22.75	24.75	5.25	5.25
7	35.00	39.50	40.00	44.50	26.50	29.85	31.50	33.75	31.50	33.75	5.25	5.25
8	40.00	45.00	46.00	51.00	30.00	33.75	36.00	38.50	36.00	38.50	7.50	7.50
9	56.00	62.75	65.00	71.75	42.50	47.50	51.00	54.35	51.00	54.35	7.50	7.50
10	63.00	71.00	72.00	80.00	47.75	53.75	57.00	61.00	57.00	61.00	7.50	7.50
12	92.00	101.00	106.00	115.00	70.00	76.75	84.00	88.50	84.00	88.50	11.00	11.00
14	136.00	147.00	158.00	169.00	103.50	111.75	105.00	110.50	105.00	110.50	11.00	11.00
15	155.00	169.00	177.00	191.00	117.00	127.00	120.00	127.00	120.00	127.00	11.00	11.00
16	180.00	196.00	207.00	223.00	137.00	149.00	135.00	143.00	135.00	143.00	11.00	11.00
18	235.00	253.00	270.00	288.00	.....	.....	.....	.....	157.00	166.00	.....	.....
20	300.00	320.00	345.00	365.00	.....	.....	.....	.....	180.00	190.00	.....	.....
22	375.00	401.00	430.00	456.00	.....	.....	.....	.....	225.00	238.00	.....	.....
24	465.00	495.00	535.00	565.00	.....	.....	.....	.....	285.00	300.00	.....	.....

Flanged fittings will always be furnished faced only, unless otherwise ordered.

Reducing single sweep tees made to order only. Single sweep tees with the side opening larger than the run not made. Reducing double sweep tees made to order only. Reducing crosses made to order only. Reducing laterals made to order only.

STANDARD COMPANION FLANGES

For 125 Pounds Steam Working Pressure

BACK VIEW, SHOWING HUB



Fig. 30A

SMOOTH FACE



Fig. 30B

BLIND FLANGE
16-INCH AND SMALLER

Fig. 30C

American Standard—Effective April 1, 1914

Size Inches	CAST IRON PRICE, EACH		MALLEABLE IRON PRICE, EACH		FERROSTEEL PRICE, EACH		FORGED STEEL PRICE, EACH		BLIND FLANGES PRICE, EACH	
	Faced	Drilled	Faced	Drilled	Faced	Drilled	Faced	Drilled	Faced	Drilled
1 x 4	.55	.80	1.10	1.60	.70	1.00	.....	.....	....	....
1 1/4 x 4 1/2	.60	.85	1.20	1.70	.75	1.05	.....	.....	....	....
1 1/2 x 5	.65	.90	1.30	1.80	.80	1.10	.....	.....	....	....
2 x 6	.75	1.00	1.50	2.00	.95	1.25	10.40	11.00	1.15	1.40
2 1/2 x 7	.85	1.10	1.70	2.20	1.05	1.35	11.80	13.00	1.30	1.55
3 x 7 1/2	.95	1.25	1.90	2.50	1.20	1.55	13.70	15.00	1.40	1.70
3 1/2 x 8 1/2	1.20	1.55	2.40	3.10	1.50	1.95	17.60	19.00	1.80	2.15
4 x 9	1.35	1.80	2.70	3.60	1.70	2.25	18.30	20.00	2.00	2.45
4 1/2 x 9 1/4	1.45	1.90	2.90	3.80	1.80	2.35	20.30	22.00	2.20	2.65
5 x 10	1.60	2.05	3.20	4.10	2.00	2.55	22.30	24.00	2.40	2.85
6 x 11	2.00	2.50	4.00	5.00	2.50	3.10	25.40	27.00	3.00	3.50
7 x 12 1/2	2.65	3.25	5.30	6.50	3.30	4.05	27.20	32.00	4.00	4.60
8 x 13 1/2	3.10	3.80	6.20	7.60	3.90	4.75	32.00	35.00	4.60	5.30
9 x 15	3.85	4.65	7.70	9.30	4.80	5.80	37.00	40.00	5.75	6.55
10 x 16	4.50	5.50	9.00	11.00	5.65	6.85	45.00	48.00	6.75	7.75
12 x 19	6.50	7.65	13.00	15.30	8.15	9.55	56.00	60.00	9.75	10.90
14 x 21	9.00	10.35	18.00	20.70	11.25	13.00	75.50	80.00	13.50	14.85
15 x 21	11.50	13.20	23.00	26.40	14.50	16.50	.....	.....	....	....
15 x 22 1/4	11.50	13.20	23.00	26.40	14.50	16.50	.....	.....	17.00	18.70
16 x 23 1/2	13.50	15.30	27.00	30.60	17.00	19.00	.....	.....	20.00	21.80
18 x 25	16.00	18.00	32.00	36.00	20.00	22.50	.....	.....	24.00	26.00
20 x 27 1/2	19.00	21.50	38.00	43.00	24.00	27.00	.....	.....	28.00	30.50
22 x 29 1/2	22.00	25.00	44.00	50.00	27.50	31.00	.....	.....	33.00	36.00
24 x 32	27.00	30.50	54.00	61.00	34.00	38.00	.....	.....	40.00	43.50

STANDARD REDUCING COMPANION FLANGES WITH RIBS

FOR STANDARD FLANGED VALVES AND FITTINGS
For Steam Working Pressures up to 125 Pounds



Fig. 31A

These flanges, used in connection with straight or reducing fittings, enable us to fill orders for reduced sizes more promptly. Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if Necessary."

They will always be of the same thickness as the regular companion flanges of corresponding outside diameter, and drilled to the template corresponding to the outside diameter, unless otherwise ordered.

In ordering reducing companion flanges, always give the screwed or reduced size first, then the outside diameter of flange wanted; for instance, if a reducing flange is wanted to connect a 6-inch pipe to a 9-inch flanged valve or fitting having a 15-inch O. D. flange, order a 6x15-inch reducing flange. This will clearly avoid the confusion often caused by orders incorrectly calling for a 9x6 or 6x9-inch flange.

New Standard - Effective January 1, 1915

Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers' Committee.

		PRICE, EACH		PRICE, EACH		PRICE, EACH			
Size Inches	Faced only	Faced and Drilled	Size Inches	Faced only	Faced and Drilled	Size Inches	Faced only	Faced and Drilled	
1 x 6	1.30	1.55	4½x11	3.30	3.80	8x21	15.00	16.35	
1½x 6	1.30	1.55	5 x11	3.30	3.80	9x21	15.00	16.35	
1½x 6	1.30	1.55	4 x12½	4.40	5.00	10x21	15.00	16.35	
1½x 7	1.45	1.70	4½x12½	4.40	5.00	12x21	15.00	16.35	
2 x 7	1.45	1.70	5 x12½	4.40	5.00	8x22½	19.00	20.70	
1½x 7½	1.55	1.85	6 x12½	4.40	5.00	10x22½	19.00	20.70	
2 x 7½	1.55	1.85	2 x13½	5.10	5.80	12x22½	19.00	20.70	
2½x 7½	1.55	1.85	2½x13½	5.10	5.80	14x22½	19.00	20.70	
2 x 8½	2.00	2.35	3 x13½	5.10	5.80	10x23½	22.00	23.80	
2½x 8½	2.00	2.35	4 x13½	5.10	5.80	12x23½	22.00	23.80	
3 x 8½	2.00	2.35	5 x13½	5.10	5.80	14x23½	22.00	23.80	
2 x 9	2.20	2.65	6 x13½	5.10	5.80	15x23½	22.00	23.80	
2½x 9	2.20	2.65	7 x13½	5.10	5.80	12x25	26.50	28.50	
3 x 9	2.20	2.65	6 x15	6.35	7.15	14x25	26.50	28.50	
3½x 9	2.20	2.65	7 x15	6.35	7.15	15x25	26.50	28.50	
2½x 9½	2.40	2.85	8 x15	6.35	7.15	16x25	26.50	28.50	
3 x 9½	2.40	2.85	2½x16	7.45	8.45	14x27½	31.00	33.50	
3½x 9½	2.40	2.85	3 x16	7.45	8.45	15x27½	31.00	33.50	
4 x 9½	2.40	2.85	3½x16	7.45	8.45	16x27½	31.00	33.50	
2 x 10	2.65	3.10	4 x16	7.45	8.45	18x27½	31.00	33.50	
2½x10	2.65	3.10	5 x16	7.45	8.45	15x29½	36.00	39.00	
3 x 10	2.65	3.10	6 x16	7.45	8.45	16x29½	36.00	39.00	
3½x10	2.65	3.10	7 x16	7.45	8.45	18x29½	36.00	39.00	
4 x 10	2.65	3.10	8 x16	7.45	8.45	20x29½	36.00	39.00	
4½x10	2.65	3.10	9 x16	7.45	8.45	14x32	44.00	47.50	
2 x 11	3.30	3.80	6 x19	10.75	11.90	16x32	44.00	47.50	
2½x11	3.30	3.80	7 x19	10.75	11.90	18x32	44.00	47.50	
3 x 11	3.30	3.80	8 x19	10.75	11.90	20x32	44.00	47.50	
3½x11	3.30	3.80	9 x19	10.75	11.90	.....	.....	.....
4 x 11	3.30	3.80	10 x19	10.75	11.90	.....	.....	.....

Furnished smooth faced and not drilled, unless otherwise specified.

EXTRA HEAVY COMPANION FLANGES

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

CAST IRON



Fig. 23A

CAST STEEL



Fig. 23C

Unless otherwise specified, we always furnish extra heavy flanges and fittings with $\frac{1}{8}$ -inch raised face, for which there is no extra charge.

BLIND FLANGE



Fig. 23B

This style of facing will hold any gasket, and is especially necessary where a thin corrugated gasket is used, as this gasket draws down to $\frac{3}{8}$ inch or less, and the heavy bolting would (without the raised face) spring the flanges until the edges touch, without putting sufficient pressure in the gasket.

Size Inches	PRICE, EACH		BLIND FLANGES	
	CAST IRON	BLIND FACES Faced only	FACED and DRILLED	FACED only
1 x 4 $\frac{1}{2}$	.95	1.30	....	....
1 $\frac{1}{4}$ x 5	1.00	1.35	....	....
1 $\frac{1}{2}$ x 6	1.10	1.45	1.65	2.00
2 x 6 $\frac{1}{2}$	1.25	1.60	1.90	2.25
2 $\frac{1}{2}$ x 7 $\frac{1}{2}$	1.40	1.75	2.10	2.45
3 x 8 $\frac{3}{4}$	1.60	2.05	2.40	2.85
3 $\frac{1}{2}$ x 9	2.00	2.55	3.00	3.55
4 x 10	2.25	2.95	3.35	4.05
4 $\frac{1}{2}$ x 10 $\frac{1}{2}$	2.40	3.10	3.60	4.30
5 x 11	2.65	3.35	4.00	4.70
6 x 12 $\frac{1}{2}$	3.30	4.05	5.00	5.75
7 x 14	4.40	5.30	6.60	7.50
8 x 15	5.10	6.15	7.65	8.70
9 x 16 $\frac{1}{4}$	6.30	7.50	9.50	10.70
10 x 17 $\frac{1}{2}$	7.40	8.90	11.00	12.50
12 x 20 $\frac{1}{2}$	10.75	12.50	16.00	17.75
14 x 23	15.00	17.00	22.50	24.50
15 x 24 $\frac{1}{2}$	19.00	21.50	28.50	31.00
16 x 25 $\frac{1}{2}$	22.25	25.00	33.50	36.25
18 x 28	26.00	29.00	39.00	42.00
20 x 30 $\frac{1}{2}$	31.00	35.00	46.00	50.00
22 x 33	36.00	41.00	54.00	59.00
24 x 36	45.00	50.00	67.00	72.00

Furnished faced only, unless otherwise ordered.

FORGED STEEL



Fig. 23D

Size Inches	PRICE, EACH		FORGED STEEL Faced only	STEEL Faced and Drilled
	CAST STEEL Faced only	and Drilled		
1 x 4 $\frac{1}{2}$	5.00	6.50	7.50	8.00
1 $\frac{1}{4}$ x 5	5.40	7.00	8.40	9.00
1 $\frac{1}{2}$ x 6	5.90	7.50	9.40	10.00
2 x 6 $\frac{1}{2}$	6.90	8.50	10.40	11.00
2 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7.30	9.50	11.80	13.00
3 x 8 $\frac{3}{4}$	8.70	12.00	13.70	15.00
3 $\frac{1}{2}$ x 9	12.10	15.50	17.60	19.00
4 x 10	14.80	18.50	18.30	20.00
4 $\frac{1}{2}$ x 10 $\frac{1}{2}$	15.80	19.50	20.30	22.00
5 x 11	16.80	20.50	22.30	24.00
6 x 12 $\frac{1}{2}$	20.40	25.00	25.40	27.00
7 x 14	24.70	30.50	27.20	32.00
8 x 15	27.00	33.00	32.00	35.00
9 x 16 $\frac{1}{4}$	29.50	35.50	37.00	40.00
10 x 17 $\frac{1}{2}$	34.50	41.50	45.00	48.00
12 x 20 $\frac{1}{2}$	46.00	54.00	56.00	60.00
14 x 23	55.50	65.00	75.50	80.00
15 x 24 $\frac{1}{2}$	64.00	75.00	84.00	90.00
16 x 25 $\frac{1}{2}$	78.00	90.00	93.00	100.00
18 x 28	98.00	111.00	118.00	125.00
20 x 30 $\frac{1}{2}$	117.00	131.00	142.00	150.00
22 x 33	140.00	157.00	.....	.....
24 x 36	165.00	182.00	.....	.....

MALLEABLE IRON FLANGES

Double list of cast iron furnished faced only, unless otherwise ordered.

EXTRA HEAVY REDUCING COMPANION FLANGES WITH RIBS

FOR EXTRA HEAVY FLANGED VALVES AND FITTINGS
For Steam Working Pressure up to 250 Pounds



Fig. 6831A

These flanges, used in connection with straight or reducing fittings, enable us to fill orders more promptly. Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if Necessary."

These flanges will always be of the same thickness as the regular companion flanges of corresponding outside diameters, and drilled to the template corresponding to the outside diameter, unless otherwise ordered.

In ordering reducing companion flanges always give the screwed or reduced size first, then the outside diameter of flange wanted; for instance, if a reducing flange is wanted to connect a 6-inch pipe to a 9-inch flanged valve or fitting having a 16½-inch O. D. flange, order a 6x16½-inch reducing flange. This will clearly avoid the confusion often caused by orders incorrectly calling for a 9x6 or a 6x9-inch flange.

New Standard Effective January 1, 1915

Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers' Committee.

PRICE, EACH			PRICE, EACH			PRICE, EACH		
Size Inches	Faced and Drilled	Size Inches	Faced and Drilled	Size Inches	Faced and Drilled	Size Inches	Faced and Drilled	Size Inches
1½x 6	1.80	2.15	3 x12½	5.50	6.25	10x20½	17.50	19.25
1½x 6½	2.10	2.45	4 x12½	5.50	6.25	8x23	25.00	27.00
1½x 7½	2.30	2.65	4½x12½	5.50	6.25	9x23	25.00	27.00
2 x 7½	2.30	2.65	5 x12½	5.50	6.25	10x23	25.00	27.00
1½x 8½	2.65	3.10	4½x14	7.25	8.15	12x23	25.00	27.00
2 x 8½	2.65	3.10	5 x14	7.25	8.15	8x24½	31.50	34.00
2½x 8½	2.65	3.10	6 x14	7.25	8.15	10x24½	31.50	34.00
2 x 9	3.30	3.85	3 x15	8.40	9.45	12x24½	31.50	34.00
2½x 9	3.30	3.85	3½x15	8.40	9.45	14x24½	31.50	34.00
3 x 9	3.30	3.85	4 x15	8.40	9.45	10x25½	37.00	39.75
2 x10	3.70	4.40	5 x15	8.40	9.45	12x25½	37.00	39.75
2½x10	3.70	4.40	6 x15	8.40	9.45	14x25½	37.00	39.75
3 x10	3.70	4.40	7 x15	8.40	9.45	15x25½	37.00	39.75
3½x10	3.70	4.40	4 x16½	10.50	11.70	12x28	43.00	46.00
2 x10½	4.00	4.70	5 x16½	10.50	11.70	14x28	43.00	46.00
2½x10½	4.00	4.70	6 x16½	10.50	11.70	15x28	43.00	46.00
3 x10½	4.00	4.70	7 x16½	10.50	11.70	16x28	43.00	46.00
3½x10½	4.00	4.70	8 x16½	10.50	11.70	14x30½	51.00	55.00
4 x10½	4.00	4.70	5 x17½	12.00	13.50	15x30½	51.00	55.00
2 x11	4.40	5.10	6 x17½	12.00	13.50	16x30½	51.00	55.00
2½x11	4.40	5.10	7 x17½	12.00	13.50	18x30½	51.00	55.00
3 x11	4.40	5.10	8 x17½	12.00	13.50	16x33	60.00	65.00
3½x11	4.40	5.10	9 x17½	12.00	13.50	18x33	60.00	65.00
4 x11	4.40	5.10	6 x20½	17.50	19.25	20x33	60.00	65.00
4½x11	4.40	5.10	7 x20½	17.50	19.25	18x36	74.00	79.00
2 x12½	5.50	6.25	8 x20½	17.50	19.25	20x36	74.00	79.00
2½x12½	5.50	6.25	9 x20½	17.50	19.25			

Furnished faced only, unless otherwise ordered.

MACHINE BOLTS



Fig. 187A



Fig. 187B

SQUARE HEADS, SQUARE NUTS AND FINISHED POINTS

MANUFACTURERS' STANDARD LIST—IN EFFECT AUGUST 1, 1912, PRICE, PER HUNDRED

Length Inches	DIAMETER, INCHES											
	3/4	5/8	11/16	1/2	9/16 & 5/8	5/4	7/8	1	1 1/8	1 1/4		
3/4 to 1 1/2	1.70	2.00	2.40	2.80	3.60	5.20	7.70	10.50	15.10	22.50	30.00	
2	1.78	2.12	2.56	3.00	3.86	5.58	8.25	11.20	16.00	23.70	31.50	
2 1/2	1.86	2.24	2.72	3.20	4.12	5.96	8.80	11.90	16.90	24.90	33.00	
3	1.94	2.36	2.88	3.40	4.38	6.34	9.35	12.60	17.80	26.10	34.50	
3 1/2	2.02	2.48	3.04	3.60	4.64	6.72	9.90	13.30	18.70	27.30	36.00	
4	2.10	2.60	3.20	3.80	4.90	7.10	10.45	14.00	19.60	28.50	37.50	
4 1/2	2.18	2.72	3.36	4.00	5.16	7.48	11.00	14.70	20.50	29.70	39.00	
5	2.26	2.84	3.52	4.20	5.42	7.86	11.55	15.40	21.40	30.90	40.50	
5 1/2	2.34	2.96	3.68	4.40	5.68	8.24	12.10	16.10	22.30	32.10	42.00	
6	2.42	3.08	3.84	4.60	5.94	8.62	12.65	16.80	23.20	33.30	43.50	
6 1/2	2.50	3.20	4.00	4.80	6.20	9.00	13.20	17.50	24.10	34.50	45.00	
7	2.58	3.32	4.16	5.00	6.46	9.38	13.75	18.20	25.00	35.70	46.50	
7 1/2	2.66	3.44	4.32	5.20	6.72	9.76	14.30	18.90	25.90	36.90	48.00	
8	2.74	3.56	4.48	5.40	6.98	10.14	14.85	19.60	26.80	38.10	49.50	
9	2.90	3.80	4.80	5.80	7.50	10.90	15.95	21.00	28.60	40.50	52.50	
10	3.06	4.04	5.12	6.20	8.02	11.66	17.05	22.40	30.40	42.90	55.50	
11	3.22	4.28	5.44	6.60	8.54	12.42	18.15	23.80	32.20	45.30	58.50	
12	3.38	4.52	5.76	7.00	9.06	13.18	19.25	25.20	34.00	47.70	61.50	
13	3.54	4.76	6.08	7.40	9.58	13.94	20.35	26.60	35.80	50.10	64.50	
14	3.70	5.00	6.40	7.80	10.10	14.70	21.45	28.00	37.60	52.50	67.50	
15	3.86	5.24	6.72	8.20	10.62	15.46	22.55	29.40	39.40	54.90	70.50	
16	4.02	5.48	7.04	8.60	11.14	16.22	23.65	30.80	41.20	57.30	73.50	
17	4.18	5.72	7.36	9.00	11.66	16.98	24.75	32.20	43.00	59.70	76.50	
18	4.34	5.96	7.68	9.40	12.18	17.74	25.85	33.60	44.80	62.10	79.50	
19	4.50	6.20	8.00	9.80	12.70	18.50	26.95	35.00	46.60	64.50	82.50	
20	4.66	6.44	8.32	10.20	13.22	19.26	28.05	36.40	48.40	66.90	85.50	
21	—	—	—	—	—	13.74	20.02	29.15	37.80	50.20	69.30	88.50
22	—	—	—	—	—	14.26	20.78	30.25	39.20	52.00	71.70	91.50
23	—	—	—	—	—	14.78	21.54	31.35	40.60	53.80	74.10	94.50
24	—	—	—	—	—	15.30	22.30	32.45	42.00	55.60	76.50	97.50
25	—	—	—	—	—	15.82	23.06	33.55	43.40	57.40	78.90	100.50
26	—	—	—	—	—	16.34	23.82	34.65	44.80	59.20	81.30	103.50
27	—	—	—	—	—	16.86	24.58	35.75	46.20	61.00	83.70	106.50
28	—	—	—	—	—	17.38	25.34	36.85	47.60	62.80	86.10	109.50
29	—	—	—	—	—	17.90	26.10	37.95	49.00	64.60	88.50	112.50
30	—	—	—	—	—	18.42	26.86	39.05	50.40	66.40	90.90	115.50

The following extras are to be understood as a part of this list:

Bolts with hexagon heads or hexagon nuts, 10 per cent extra. If both hexagon heads and hexagon nuts, 20 per cent extra. Joint bolts with oblong nuts, 10 per cent extra. Bolts with tee heads, askew heads and eccentric heads, 20 per cent extra. Key bolts, 20 per cent extra. Bolts with cotter holes, 25 per cent extra.

Machine bolts, when fitted with U. S. standard square nuts, add 5 per cent.

Machine bolts, when fitted with U. S. standard hexagon nuts, add 15 per cent.

HOOK PLATES, BEAM CLAMPS, ETC.

STEEL PLATES

STEEL HOOK PLATE



Fig. 29299A

STEEL EXPANSION PLATE



Fig. 29299B

**STEEL DROP-FORGED I-BEAM CLAMP
(ADJUSTABLE TO I-BEAMS
1 TO 6½ INCHES)**



Fig. 29299C

Size Inches	Number Hooks in Strip	PRICE, EACH	
		Hook Plates	Expansion Plates
1	30	2.50	3.60
1 1/4	30	3.25	4.20
1 1/2	25	3.75	5.00
2	20	4.25	6.00

I-BEAM CLAMP AND BOLT



Fig. 29299D

STEEL DROP-FORGED I-BEAM CLAMPS

Number.....	1	2	3	4	5	
For Pipe.....	inches	$\frac{1}{2}$ to $1\frac{1}{2}$	2 to 3	$3\frac{1}{2}$ to 6	7 to 8	9 to 12
Price.....	each	.25	.30	.35	.50	.70

I-BEAMS, CLAMPS AND BOLTS

**ADJUSTABLE MALLEABLE IRON BEAM CLAMPS, WITH BRACKET
FOR PIPE AND LOCKNUT** **WITH LUGS AND BOLT**



Fig. 29299E



Fig. 29299F

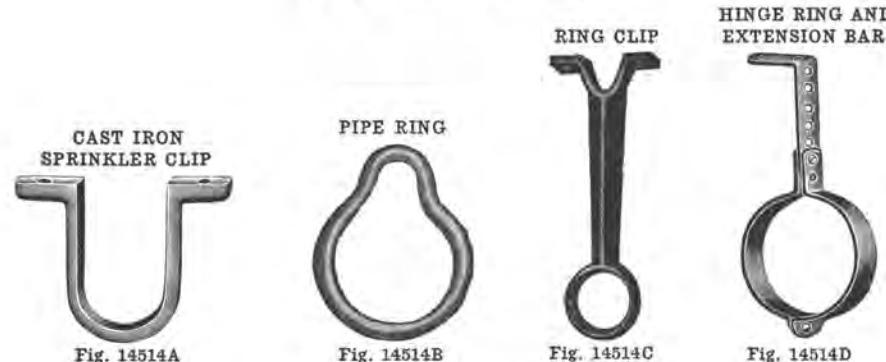


Fig. 29299G

Price, for Pipe and Locknut.....	each	.40
" Tappée $\frac{1}{4}$ -Inch, for Use on Pipe up to $3\frac{1}{2}$ Inches.	"	.40
" $\frac{3}{8}$ " " " " 4 " 8 "	"	.50
" with Lugs and Bolt.....	"	.50

These clamps have a range of adjustment for I-Beams from 2 to 7 inches.

PIPE HANGERS



CAST IRON SPRINKLER CLIPS										
Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price, Short.....	each	.15	.16	.18	.20	.25	.30	.40	.50	.65
" Long.....	"	.17	.18	.20	.22	.27	.35	.45	.60	.75

PIPE RINGS															
Size..	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8		
Price..	each	.02	.03	.03	.04	.05	.06	.08	.12	.15	.20	.25	.40	.50	.60

RING CLIPS										
Size.....	inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price.....	each	.09	.10	.11	.18	.29	.33	.46		

HINGE RING AND EXTENSION BARS

Patented

This style is used extensively for quick work. The bar can be bent to any desired angle. An excellent hanger for soil pipe work.

Size....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price....	each	.19	.19	.21	.23	.25	.27	.29	.31	.35	.37
Size....	inches	$4\frac{1}{2}$	5	6	7	8	9	10	11	12	...
Price....	each	.39	.41	.45	.70	.95	1.20	1.50	1.70	2.00	...

LAG SCREW WITH BOLT



Fig. 14514E



Fig. 14514F

EXTENSION BARS

Number.....	1		2	3	4	5
For Pipe.....	inches	$\frac{1}{2}$ to $1\frac{1}{2}$	2 to 3	$3\frac{1}{2}$ to 6	7 to 8	9 to 12
Price.....	per foot	.08	.09	.10	.20	.28

Bolt holes are $\frac{1}{2}$ inch apart. Stock length of bars, 10 feet.

LAG SCREWS WITH BOLTS

Number.....	1		2	3	4	5
For Pipe.....	inches	$\frac{1}{2}$ to $1\frac{1}{2}$	2 to 3	$3\frac{1}{2}$ to 6	7 to 8	8 to 12
Price.....	each	.10	.12	.14	.20	.25

PIPE HANGERS AND CHAINS

FITALL HANGER STRAPS



Fig. 1949A

Made from cold-rolled galvanized steel, $\frac{7}{8}$ or 1 inch wide. The No. 1 is guaranteed to hold securely any pipe up to 3 inches in diameter, and the No. 3, any pipe up to 5 inches in diameter.



Put up in coils of 100 feet each. One hundred cotter pins free with each coil, both packed securely in cardboard boxes.

No.	Width Inches	Gauge	Price per Coil
1	$\frac{7}{8}$	24	3.00
3	1	20	3.75

SINGLE JACK CHAIN



Fig. 1949B

No.	PRICE, PER DOZEN YARDS		PRICE, PER DOZEN YARDS	
	Iron	Brass	Iron	Brass
8	.95	5.25	.15	.50
9	.90	4.25	.16	.48
10	.80	3.50	.18	.45
11	.70	2.80	.20	.40
12	.65	2.30	.22	.40
13	.60	1.92	.24	.40
14	.55	1.60	...	...

NIAGARA PIPE HANGING CHAINS



Fig. 1949C

Size Chain No.	For Pipe In in.	Tensile Strength Pounds	Price per 100 Ft.
000	3 $\frac{1}{2}$ to 8	1573	6.50
0	2 $\frac{1}{2}$ " 3	1095	5.00
2	1 $\frac{1}{2}$ " 2	700	4.25
4	1 " 1 $\frac{1}{4}$	540	3.75

OX BOW HANGERS



Fig. 1949D

Size	For Chain No.	Price, per 100 Pieces
Large	000, 0	15.00
Small	2, 4	7.50

SCREW EYE HANGERS



Fig. 1949E

Size	For Chain No.	Price per 100 Pieces
Large	000, 0, 2	5.00
Small	4	2.50

PIPE HANGERS, HOOKS, ETC.

PIPE HANGERS

Solid Ring Extension



Fig. 9772A



Fig. 9772B

Size Inches	PRICE, PER 100			
	SOLID Plain	RING Galv.	SOLID Plain	RING Ext. Galv.
3/8	5.00	6.50	....	....
1/2	5.00	6.50	6.50	8.00
5/8	5.80	7.00	8.00	10.00
1	7.75	9.00	10.00	12.00
1 1/4	10.00	12.00	12.00	14.00
1 1/2	14.00	16.00	15.00	18.00
2	22.00	25.00	....	....

Split Ring Extension



Fig. 9772C



Fig. 9772D



Fig. 9772E

SPLIT RING SWIVEL BASE OR CONCEALED SCREW—GALVANIZED

Size Inches	Price per 100	Size Inches	Price per 100	Size Inches	Price per 100
3/8	17.00	1	25.00	2	50.00
1/2	17.00	1 1/4	30.00	...	....
5/8	20.00	1 1/2	40.00	...	....

SPLIT RING EXTENSION

Size Inches	PRICE, EACH			
	WITH PLAIN	NIPPLE Galv.	WITHOUT PLAIN	NIPPLE Galv.
3/8	.22	.25	.17	.20
1/2	.22	.25	.17	.20
5/8	.27	.30	.22	.25
1	.32	.35	.27	.30
1 1/4	.35	.40	.30	.35
1 1/2	.40	.50	.35	.45
2	.50	.60	.45	.55
2 1/2	.70	.80	.65	.70
3	.90	1.00	.80	.90
4	1.10	1.25	1.00	1.15

Gas Pipe Hook



Fig. 9772F

Soil Pipe Hook



Fig. 9772G

GAS PIPE HOOKS

Size Inches	Price per 100	Size Inches	Price per 100	Size Inches	Price per 100
1/4	.45	3/4	.80	1 1/2	1.60
5/8	.55	1	1.00	2	2.00
1/2	.65	1 1/4	1.30	...	...

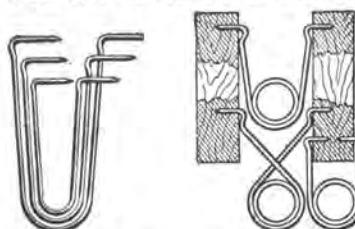
SOIL PIPE HOOKS

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
2	.08	4	.13	6	.20
3	.11	5	.16	8	.30

TINNED STRAPS

Size In.	Price per Lb.	Size In.	Price per Lb.	Size In.	Price per Lb.
1/4	.30	3/4	.30	1 1/2	.30
5/8	.30	1	.30	2	.30
1/2	.30	1 1/4	.30	...	...

REZNOR WIRE PIPE HOOKS



PAT. JULY 11, 1893

Fig. 9772J

PRICE, PER HUNDRED

LENGTH OF HOOKS, INCHES

Size Pipe Inches	3	4	6
3/8	1.00	1.15	1.40
1/2	1.10	1.20	1.50
5/8	...	1.30	1.70
1	...	1.50	2.00
1 1/4	...	1.90	2.50
1 1/2	...	...	2.70
2	...	...	2.90

PRICE, PER HUNDRED

LENGTH OF HOOKS, INCHES

Size Pipe Inches	8	10	...
1/2	1.90	...	...
3/4	2.20	...	...
1	2.40	2.80	...
1 1/4	3.00	3.50	...
1 1/2	3.50	4.00	...
2	4.00	4.50	...

FLOOR AND CEILING PLATES

REINFORCED HINGED PLATES

SHEET STEEL AND BRASS

PATENTED JAN. 31, 1911

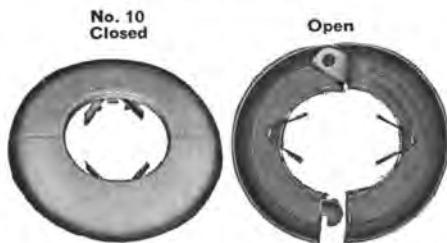


Fig. 2495A

Can be cut with hack saw to fit specific conditions.

No. 10 Plate is reinforced by a plate within a plate.



Fig. 2495B

No. 14 Plate is made only in sizes $\frac{1}{2}$ to 4 inches inclusive.

Size Inches	PRICE EACH		
	Black Steel	N. P. Steel	N. P. Brass
$\frac{1}{4}$	.14	.25	.60
$\frac{3}{8}$	.15	.26	.60
$\frac{1}{2}$	.16	.27	.62
$\frac{3}{4}$	.17	.28	.65
1	.20	.32	.72
$1\frac{1}{4}$	.22	.35	.80
$1\frac{1}{2}$	.25	.38	.85
2	.30	.45	1.00
$2\frac{1}{2}$	.50	.65	1.50
3	.65	.80	1.80
$3\frac{1}{2}$	.80	1.00	2.25
4	1.00	1.25	2.75
$4\frac{1}{2}$	1.25	1.50	3.25
5	1.50	1.75	3.75
6	1.75	2.00	4.25

No. 3 IMPROVED HINGED PLATES

CAST IRON AND BRASS

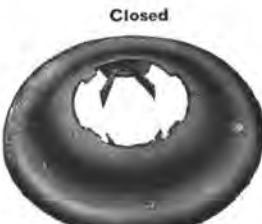


Fig. 2495C

Especially designed with hinge joint and positive lock. Equipped with heat proof springs.



Size Inches	PRICE, EACH		
	Black Iron	N. P. Iron	N. P. or Pol. Brass
$\frac{3}{8}$	.15	.26	1.00
$\frac{1}{2}$	.16	.27	1.00
$\frac{3}{4}$	.17	.28	1.20
1	.20	.32	1.30
$1\frac{1}{4}$	.22	.35	1.60
$1\frac{1}{2}$	.25	.38	1.80
2	.30	.45	2.00
$2\frac{1}{2}$	.50	.65	2.50
3	.65	.80	3.00
$3\frac{1}{2}$	.80	1.00	4.00
4	1.00	1.25	4.00
$4\frac{1}{2}$	1.25	1.50	5.00
5	1.50	1.75	5.00
6	1.75	2.00	5.00

PIPE CLAMPS AND SADDLES

MALLEABLE IRON, WITH WROUGHT IRON STRAPS

Water Pipe Clamps



Fig. 9132A

Steam Pipe Saddle



Fig. 9132B



Fig. 9132C

WATER PIPE CLAMPS

Number	Outside Diameter of Circle, Inches	CLAMPS WILL FIT			Price, Each	Number	CLAMPS WILL FIT			Price, Each
		Size, Wrought Iron Pipe, Inches	Size, Outside- Diameter, Casing Inches	Size, Cast Iron Pipe, Inches			Size, Wrought Iron Pipe, Inches	Size, Outside- Diameter, Casing Inches	Size, Cast Iron Pipe, Inches	
0	1 7/8	1 1/2	2	1 1/2	1.00	19	6 5/8	6	6 5/8	2.25
1	2 3/8	2	2 1/2	2 1/2	1.00	20	6 5/8	6	6 5/8	2.50
2	2 7/8	2 1/2	2 3/4 & 3	2	1.25	21	6 5/8	6	6 5/8	5.00
3	3 1/2	3	3 1/2	1	1.25	22	7	7	6	2.50
4	3 1/2	3	3 1/2	1 1/4	1.50	23	7	7	6	2.70
5	4	3 1/2	4	3	1.50	24	7	7	6	5.00
6	4	3 1/2	4	3	1.75	25	7 5/8	7	7 5/8	2.50
7	4 1/2	4	4 1/2	1 1/2	1.75	26	7 5/8	7	7 5/8	2.70
8	4 1/2	4	4 1/2	2	2.00	27	7 5/8	7	7 5/8	5.00
9	4 1/2	4	4 1/2	2 1/2 and 3	4.00	28	8	8	7	4.50
10	5	4 1/2	5	4	3/4 to 1 1/2	1.80	8	8	7	5.00
11	5	4 1/2	5	4	2	1.15	30	8	8	5.50
12	5	4 1/2	5	4	2 1/2 and 3	4.00	30 1/2	8 5/8	8 5/8	5.50
13	5 1/2	5	5 1/2	3/4 to 1 1/2	1.80	31	8 5/8	8	8 5/8	5.50
14	5 1/2	5	5 1/2	2	2.15	32	8 5/8	8	8 5/8	6.00
15	5 1/2	5	5 1/2	2 1/2 and 3	4.00	33	9	9	8 5/8	8.00
16	6	6	5 1/2 to 1 1/2	2 00	24	10	10	9	8 5/8	9.00
17	6	6	5	2	2.40	35	10 3/4	10	9	9.00
18	6	6	5 2 1/2 and 3	4.50	36	12 1/4	12	12	8 5/8	10.00

Always order water pipe clamps by number.

Sizes Nos. 33, has malleable iron strap.

STEAM PIPE SADDLES

Size of Pipe...in. Tapped for Pipe.....in.	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2
Price.....each	90	1.00	1.25	1.25	1.40	1.50	2.50
Size of Pipe...in. Tapped for Pipe.....in.	5	5	6	6	7	8	9
Price.....each	2.75	2.75	2.75	5.75	6.50	6.50	8.50
Size of Pipe...in. Tapped for Pipe.....in.	10	10	12	12	15	16	.....
Price.....each	10.00	10.00	14.00	14.00	22.00	25.00	.....

CLAMPS

SKINNER PIPE JOINT CLAMPS



Fig. 721A

Repairs leaks where pipe is screwed into fitting. The entire thrust is against the packing and the lip on the gasket container ring guides packing squarely into the threads. Made of malleable iron. A positive permanent repair on steam, oil, gas, hot or cold water, air, ammonia, or brine.

Detailed View



Painted to resist rust and fitted with Tobin bronze thrust screws. Made in halves held together by cap screws. Heavy enough for any pressure.

Size Inches	Price Each	Size Inches	Price Each
1/2	1.50	8	13.00
3/4	1.50	9	15.75
1	1.50	10	18.75
1 1/4	1.90	12	22.50
1 1/2	2.25	14	31.50
2	3.00	15	33.75
2 1/2	3.75	16	36.00
3	4.50	18	40.50
3 1/2	5.25	20	45.00
4	6.00	21	50.00
4 1/2	6.75	22	55.00
5	7.50	24	60.00
6	9.00	26	65.00
7	10.50		

EMERGENCY PIPE CLAMPS

For 1/2 to 4-inch Pipe



Fig. 721B

Every stationary and marine engineer, plumber, janitor and steam fitter has occasion to use repairs of this kind, and should always have them on hand to use in emergency. They can be attached in a moment, and their use often saves valuable property.

Made of malleable iron. Being compact, they are available for pipes close together, as in coils.

Extra Heavy, for Sizes Above 4 Inches



Fig. 721C

Size Inches	Length Inches	No. of Bolts	Price Each
1 1/2	3 1/4	..	.60
3/4	3 1/4	..	.68
1	3 1/2	..	.75
1 1/4	3 3/4	..	.90
2	4	..	1.05
2 1/2	4 1/4	..	1.20
3	5	..	1.50
3 1/2	5 1/2	..	1.88
4	6	..	2.25
4 1/2	6 1/2	2	3.00
5	7	3	6.75
6	8	3	7.50
7	9	3	9.00
8	9 1/2	3	10.50
9	10	3	12.00
10	11	4	13.50
11	12	4	15.00
12	12	4	18.00

Furnished complete with packing.

LUNKENHEIMER BRONZE VALVES

REGRINDING GLOBE AND ANGLE VALVES

MEDIUM PATTERN VALVES

For 200 Pounds Steam Working Pressure

No. 407, Globe



Fig. 8934A

EXTRA HEAVY PATTERN VALVES

For 300 Pounds Steam Working Pressure

No. 409, Globe



Fig. 8934C

The features of construction of the Lunkenheimer Bronze Regrinding Valves constitute a design possessing unusual strength and provide valuable operative and maintenance advantages.

No. 408, Angle



Fig. 8934B

The large sale of Lunkenheimer Bronze Regrinding Valves has demonstrated that users appreciate the fact that it is possible to secure in them a reliable valve, which can be repaired without disconnecting pipes.

No. 557, Angle



Fig. 8934D

Size Inches	PRICE, EACH	
	No. 407 Globe	No. 408 Angle
1/8	.70	.70
1/4	.70	.70
3/8	.85	.85
1/2	1.15	1.15
5/8	1.45	1.45
1	2.00	2.00
1 1/4	2.80	2.80
1 1/2	3.90	3.90
2	6.20	6.20
2 1/2	12.00	12.00
3	16.50	16.50
3 1/2	30.00	30.00
4	40.00	40.00

Valves finished all over, with wood or bronze wheel, with tee handle or lock shield or with union are procurable on special order.

Size Inches	PRICE, EACH	
	No. 409 Globe	No. 557 Angle
1/4	.90	.90
3/8	1.10	1.10
1/2	1.50	1.50
5/8	2.30	2.30
1	3.60	3.60
1 1/4	5.10	5.10
1 1/2	7.10	7.10
2	10.90	10.90
2 1/2	19.50	19.50
3	29.00	29.00
3 1/2	42.30	42.30
4	53.90	53.90

Valves finished all over, with wood or bronze wheel, with tee handle or with union are procurable on special order.

LUNKENHEIMER BRONZE VALVES

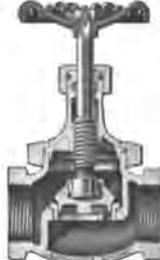
RENEWO GLOBE AND ANGLE

UNION BONNET, RENEWABLE SEAT AND DISC

No. 73, Globe



Fig. 5844A

No. 73, Globe
Sectional

No. 72, Angle



Fig. 5844B

The Renewo Valve has been designed for the benefit of the trade preferring a renewable seat regrinding valve.

It retains the original Lunkenheimer union connection between the hub and body, which protects the uniting threads from corrosion and strengthens the neck of the body.

The stuffing box, of ample proportion, is repackable under pressure when valve is wide open, and is equipped with gland follower on sizes $\frac{3}{4}$ -inch and larger.

Cross valves are procurable on special order.

MEDIUM

Screwed, 200 Pounds Working Pressure
B-H Flanged, 150 Pounds Working Pressure

SCREWED

Size Inches	PRICE, EACH	
	No. 73 Globe	No. 72 Angle
$\frac{1}{4}$	1.10	1.10
$\frac{3}{8}$	1.25	1.25
$\frac{1}{2}$	1.60	1.60
$\frac{3}{4}$	2.20	2.20
1	2.80	2.80
$1\frac{1}{4}$	4.00	4.00
$1\frac{1}{2}$	5.50	5.50
2	8.75	8.75
$2\frac{1}{2}$	15.75	15.75
3	22.00	22.00

EXTRA HEAVY

Screwed, 300 Pounds Working Pressure
B-X Flanged, 250 Pounds Working Pressure

SCREWED

Size Inches	PRICE, EACH	
	No. 16 Globe	No. 17 Angle
$\frac{1}{4}$	1.60	1.60
$\frac{3}{8}$	1.70	1.70
$\frac{1}{2}$	2.50	2.50
$\frac{3}{4}$	3.80	3.80
1	4.90	4.90
$1\frac{1}{4}$	6.50	6.50
$1\frac{1}{2}$	9.00	9.00
2	14.00	14.00
$2\frac{1}{2}$	25.00	25.00
3	36.00	36.00

FLANGED

PRICE, EACH

Size Inches	No. 70	No. 69	Size Inches
	Globe	Angle	
$\frac{3}{8}$	4.00	4.00	$\frac{3}{8}$
$\frac{1}{2}$	4.00	4.00	$\frac{1}{2}$
$\frac{3}{4}$	5.00	5.00	$\frac{3}{4}$
1	6.00	6.00	1
$1\frac{1}{4}$	9.00	9.00	$1\frac{1}{4}$
$1\frac{1}{2}$	11.00	11.00	$1\frac{1}{2}$
2	16.50	16.50	2
$2\frac{1}{2}$	25.00	25.00	$2\frac{1}{2}$
3	34.00	34.00	3

FLANGED

PRICE, EACH

No. 19	PRICE, EACH	
	No. 20 Globe	No. 20 Angle
$\frac{3}{8}$	7.00	7.00
$\frac{1}{2}$	7.50	7.50
$\frac{3}{4}$	10.00	10.00
1	12.00	12.00
$1\frac{1}{4}$	16.00	16.00
$1\frac{1}{2}$	23.50	23.50
2	34.00	34.00
$2\frac{1}{2}$	48.00	48.00
3	68.00	68.00

LUNKENHEIMER BRONZE VALVES

RENEWO GLOBE, ANGLE AND CROSS

REPAIR PARTS

For Nos. 68, 69, 70, 71, 72, 73, 353, 384, 385 and 867

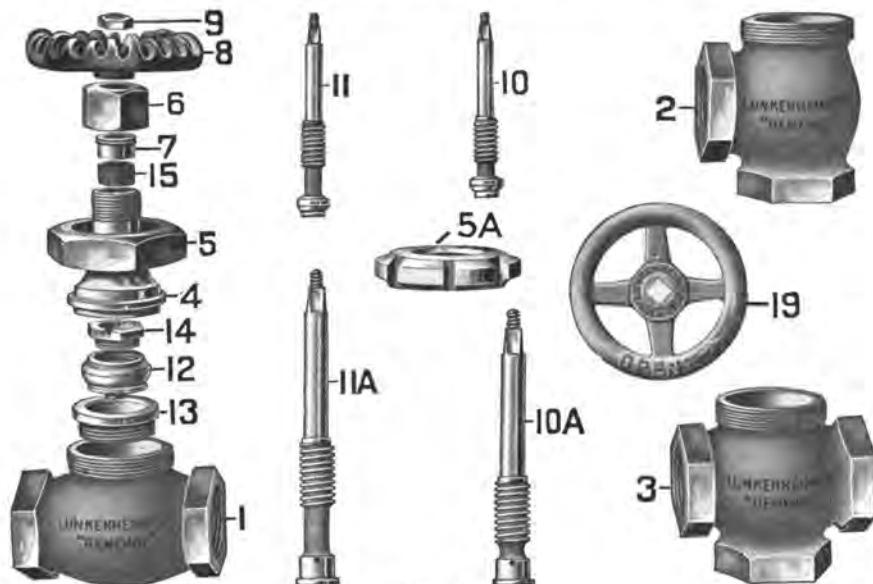


Fig. 12443A

Size of Valve.....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
No. 1, Globe Valve Body.....ea.	.55	.65	.80	1.10	1.40	2.00	2.75	4.50	8.00	11.00
" 2, Angle " " .. "	.55	.65	.80	1.10	1.40	2.00	2.75	4.50	8.00	11.00
" 3, Cross " " .. "	.85	1.00	1.10	1.25	1.60	2.40	3.10	4.75	10.00	13.75
" 4, Bonnet " " .. "	.25	.25	.40	.55	.75	.90	1.20	2.30	3.70	5.00
" 5, " " Ring, Hex... "	.30	.30	.30	.35	.60	.85	1.20	..	..	..
" 5A, " " Round Slotted.....ea.	.20	.20	.25	.30	.35	.35	.40	.50	.90	1.30
No. 6, Stuffing Box....."	.18	.18	.20	.20	.20	.20	.25	.30	.45	.60
" 7, Gland....."	.07	.07	.08	.09	.09	.09	.12	.15	.20	.35
" 8, Self-cooling Wheel....."	.40	.40	.45	..	.50	.65	.85	1.20	1.70	2.40
No. 10A, Stems for Globe Valves....."	..	..	..	..	..	..	..	..	..	..
No. 11, Stems for Angle or Cross Valves.....ea.	.65	.65	.70	..	..	..	..	..	..	..
No. 11A, Stems for Angle or Cross Valves.....ea.	..	..	..	..	.60	.75	.95	1.30	1.80	2.60
No. 12, Nickel Disc....."	..	..	..	..	.55	.70	.95	1.45	2.40	3.70
" 13, Renewable Nickel Seat.....ea.	.30	.30	.40	.50	.65	.90	1.30	2.00	3.20	4.60
No. 14, Disc Lock-nut....."	..	..	..	..	.09	.09	.13	.15	.20	.45
" 15, *Packing....."	..	..	..	..	..	..	..	..	..	..
" 19, Handwheel, Iron Plain Rim.."	..	..	..	..	..	..	..	..	.70	1.00

*Prices upon application.

STANDARD BRASS VALVES

WITH BRASS DISC

For Steam Working Pressures up to 100 Pounds

GLOBE AND ANGLE VALVES



Fig. 12359A



Fig. 12359B



Fig. 12359D



Fig. 12359E

Size In.	PRICE, EACH		Size In.	PRICE, EACH	
	GLOBE OR ANGLE Screwed	ANGLE Flanged		GLOBE OR ANGLE Screwed	ANGLE Flanged
1/8	.72	.....	1 1/2	3.50	10.50
1/4	.72	2	5.30	16.00	.....
3/8	.77	2 1/2	10.00	23.00	.....
1/2	1.00	4.50	3	14.40	35.00
5/8	1.26	5.00	3 1/2	26.50	50.00
1	1.80	6.75	4	36.00	70.00
1 1/4	2.52	8.50	.....	.....	.....

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	HORIZONTAL Screwed	VERTICAL Flanged		HORIZONTAL Screwed	VERTICAL Flanged
1/8	.65	.....	1/8	.65	.....
1/4	.65	.....	1/4	.65	.....
3/8	.70	.....	3/8	.70	.....
1/2	.90	4.40	1/2	.90	4.40
5/8	1.15	4.90	5/8	1.15	4.90
1	1.60	6.50	1	1.60	6.50
1 1/4	2.25	8.25	1 1/4	2.25	8.25
1 1/2	3.15	10.15	1 1/2	3.15	10.15
2	4.75	15.50	2	4.75	15.50
2 1/2	9.00	22.00	2 1/2	9.00	22.00
3	13.00	33.50	3	13.00	33.50
3 1/2	24.00	47.50	3 1/2	24.00	47.50
4	32.50	66.50	4	32.50	66.50

CHECK VALVES

CROSS VALVES



Fig. 12359C



Fig. 12359F



Fig. 12359G

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Screwed	Flanged		Screwed	Flanged
1/4	1.25	.....	1/8	.72	.....
3/8	1.25	.....	1/4	.72	.....
1/2	1.50	5.25	3/8	.77	.....
5/8	2.00	7.00	1/2	1.00	.....
1	2.50	9.00	5/8	1.26	.....
1 1/4	3.50	12.00	1	1.80	6.75
1 1/2	5.00	15.75	1 1/4	2.52	8.50
2	8.00	22.00	1 1/2	3.50	10.50
2 1/2	16.00	33.00	2	5.30	14.40
3	24.00	45.00	2 1/2	10.00	23.00
3 1/2	45.00	75.00	3	14.40	35.00
4	60.00	100.00	3 1/2	26.50	50.00

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	VERTICAL Screwed	FLANGED		SWING Screwed	FLANGED
1/8	.72	.....	1/8	.....	.....
1/4	.72	.....	1/4	.....	1.80
3/8	.77	.....	3/8	.....	1.80
1/2	1.00	.....	1/2	1.00	.....
5/8	1.26	.....	5/8	1.26	2.25
1	1.80	6.75	1	1.80	2.80
1 1/4	2.52	8.50	1 1/4	2.52	3.65
1 1/2	3.50	10.50	1 1/2	3.50	4.75
2	5.30	14.40	2	5.30	6.75
2 1/2	10.00	23.00	2 1/2	10.00	15.00
3	14.40	35.00	3	14.40	24.00
3 1/2	26.50	50.00	3 1/2	26.50	50.00
4	36.00	70.00	4	36.00	70.00

JENKINS BRONZE VALVES

GLOBE AND ANGLE VALVES

For 150 Pounds Steam Working Pressure
or 250 Pounds Water Working Pressure
No. 108, Angle

No. 106, Globe



Fig. 22910A



Fig. 22910B

Size In.	PRICE, SCREWED EACH		PRICE, SCREWED EACH	
	No. 106 Globe	No. 108 Angle	No. 106 Globe	No. 108 Angle
1/8	1.10	1.10	1 1/4	4.00
1/4	1.10	1.10	1 1/2	5.50
3/8	1.25	1.25	2	8.75
1/2	1.60	1.60	2 1/2	15.75
5/8	2.20	2.20	3	22.00
1	2.80	2.80		

No. 370 GATE VALVES

For 125 Pounds Steam Working Pressure
or 175 Pounds Steam Working Pressure



Fig. 22910C

Stationary spindle, inside screw.

Size In.	Price		Price	
	Screwed Each	Size In.	Screwed Each	Size In.
1/4	1.45	1 1/4	3.70	
3/8	1.45	1 1/2	5.00	
1/2	1.65	2	7.30	
5/8	2.05	2 1/2	13.00	
1	2.80	3	19.00	

CHECK VALVES

For 150 Pounds Working Pressure

No. 117,
Horizontal

Fig. 22910D

No. 352, Swing



Fig. 22910E

Size In.	PRICE, EACH		Size In.	PRICE, EACH	
	No. 117 Hor.	No. 352 Swing		No. 117 Hor.	No. 352 Swing
1/8	1.10	...	1 1/4	3.60	3.60
1/4	1.10	...	1 1/2	5.00	5.00
3/8	1.20	1.20	2	7.50	7.50
1/2	1.30	1.30	2 1/2	14.00	14.00
5/8	1.90	1.90	3	21.00	21.00
1	2.60	2.60	...	...	...

DISCS



Round Hole



Square Hole

Fig. 22910F

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
1/4	.06	3	.80	10	4.50
3/8	.08	3 1/2	1.00	12	5.00
1/2	.08	4	1.20	14	7.00
* 3/4	.10	4 1/2	1.40	16	8.00
* 1	.12	5	1.60	18	10.00
* 1 1/4	.18	6	2.00	20	12.00
* 1 1/2	.24	7	2.40	22	15.00
* 2	.36	8	2.80	24	18.00
2 1/2	.48	9	3.60	...	...

*Square hole made 3/4 to 2-inch only.

KANTSPLIT WHEELS



The Kant-split wheel is the standard for all types of Jenkins wood wheel valves. Has hardwood body, nickel-plated, thin sheet steel top and bottom plates, and hard white metal hub or center.

Wheel No.	Valve Inches	O. D. Inches	Square Socket Inches	Price Each
B	1/4 and 3/8	2 3/8	1/4	.24
C	1/2	2 1/2	5/8	.24
D	3/4	2 3/4	5/8	.25
E	1	3	3/8	.25
F	1 1/4	3 1/4	1 1/2	.26
G	1 1/2	3 3/8	7/16	.26
P	2	3 5/8	1 1/2	.28

O. I. CO. COMPOSITION DISC VALVES

GLOBE, ANGLE AND CROSS VALVES

For 200 Pounds Steam Working Pressure



Fig. 18687A

Angle



Fig. 18687B

Cross



Fig. 18687C

O. I. Composition Disc Valves are made from a high-grade steam metal, which has a most decided influence in the wearing qualities of a valve.

The valve areas are far in excess of the pipe areas.

All valves can be packed while under pressure.

For packing, a special split ring is used which fits the stuffing box and spindle tightly, and requires very little compression to hold steam tight.

The disc is made from a special compound that will not break, pit, crack or become brittle in service. Wears down to a thin ring, giving many times longer service than ordinary valve discs.

PRICE, SCREWED EACH			PRICE SCREWED EACH		
Size	Globe In. or Angle	Cross Valves	Size	Globe or Angle In.	Cross Valves
1/8	1.10	...	1 1/4	4.00	4.75
1/4	1.10	1.70	1 1/2	5.50	6.25
3/8	1.25	2.00	2	8.75	9.50
1/2	1.60	2.25	2 1/2	15.75	20.00
5/8	2.80	3.25	3	22.00	27.50
1	2.80	3.25	...	....	....

Size	Price Each	Size	Price Each	Size	Price Each
1/4	.04	1	.06	2 1/2	.24
3/8	.04	1 1/4	.09	3	.50
1/2	.04	1 1/2	.12	3 1/2	.60
5/8	.05	2	.18	4	.80

HORIZONTAL CHECK VALVES

For 200 Pounds Steam Working Pressure



Fig. 18687D

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/4	1.10	1	2.60	2 1/2	13.50
3/8	1.20	1 1/4	3.60	3	21.00
1/2	1.30	1 1/2	5.00	...	....
5/8	1.90	2	7.50	...	....

Y BLOW-OFF VALVES

For 200 Pounds Steam Working Pressure



Fig. 18687E

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/2	4.50	1 1/4	10.00	2 1/2	36.00
3/4	6.00	1 1/2	13.00	...	....
1	8.00	2	19.00	...	....

DISCS



Fig. 18687F

LUNKENHEIMER BRONZE VALVES

REGRINDING HORIZONTAL ANGLE AND VERTICAL CHECK

MEDIUM

Screwed, 200 Pounds Working Pressure
B-H Flanged, 150 Pounds Working Pressure

No. 414, Horizontal
Screwed

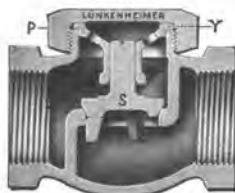


Fig. 2469A

No. 415, Angle
Screwed



Fig. 2469B

EXTRA HEAVY

Screwed, 300 Pounds Working Pressure
B-X Flanged, 250 Pounds Working Pressure

No. 413, Horizontal
Screwed



Fig. 2469G

No. 621, Angle
Screwed



Fig. 2469H

No. 583, Horizontal
Flanged



Fig. 2469C

No. 584, Angle
Flanged



Fig. 2469D

No. 558, Horizontal
Flanged

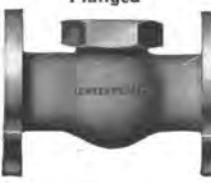


Fig. 2469J

No. 587, Angle
Flanged

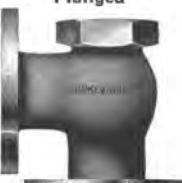


Fig. 2469K

No. 418, Vertical
Screwed



Fig. 2469E

No. 585, Vertical
Flanged



Fig. 2469F

No. 622, Vertical
Screwed



Fig. 2469L

No. 586, Vertical
Flanged



Fig. 2469M

Size In.	PRICE, EACH Screwed Flanged	Size In.	PRICE, EACH Screwed Flanged
1/8	.50	1 1/2	3.25 9.70
3/16	.50	2	5.20 13.30
5/16	60 *1.90	2 1/2	10.00 18.20
3/8	85 *3.00	3	14.00 25.80
7/16	1.15 4.30	3 1/2	19.75 32.90
1	1.55 5.20	4	30.75 46.00
1 1/4	2.30 7.30	....	....

Size In.	PRICE, EACH Screwed Flanged	Size In.	PRICE, EACH Screwed Flanged
1/4	.90	1 1/2	5.50 20.00
5/16	1.00 *6.10	2	8.90 26.50
3/8	1.20 *7.60	2 1/2	16.20 40.00
7/16	1.70 9.10	3	24.30 56.00
1	2.80 11.50	3 1/2	35.40 81.00
1 1/4	3.90 14.00	4	45.20 110.00

*Not procurable in vertical pattern.

LUNKENHEIMER REGRINDING SWING CHECK VALVES

BRONZE

MEDIUM PATTERN
No. 554, Screwed



Fig. 35089A

IRON BODY BRONZE MOUNTED

STANDARD PATTERN
No. 228, Screwed



Fig. 35089B

WORKING STEAM PRESSURES.—With screw ends, 200 pounds; with B-H flange ends, 150 pounds.

Size In.	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	Flanged	No. 554	B-H
1/4	2 5/8	...	1.25	...
5/8	2 7/8	3 7/8	1.25	2.60
1 1/2	2 9/16	3 7/8	1.30	2.90
3	3	4 3/8	1.75	3.60
1	3 9/16	5	2.25	4.90
1 1/4	3 5/8	5 1/2	3.25	7.20
1 1/2	4 3/8	6 1/8	4.25	9.20
2	5 5/8	7 5/8	6.25	12.30
2 1/2	6 3/8	8 5/8	11.50	18.50
3	7 1/2	9	16.00	26.80

EXTRA HEAVY PATTERN

WORKING STEAM PRESSURES.—With screw ends, 300 pounds; with B-X flange ends, 250 pounds.

Size In.	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	Flanged	No. 624	B-X
1/4	2 3/8	...	2.00	...
5/8	2 1/2	3 7/8	2.10	6.30
1 1/2	2 9/16	4 5/16	2.20	7.20
3/4	3 1/4	4 7/8	2.90	8.90
1	3 9/16	5 9/16	4.00	11.00
1 1/4	4 1/4	6 1/8	5.60	14.00
1 1/2	4 5/8	6 15/16	7.50	20.00
2	5 1/8	7 7/8	11.00	25.50
2 1/2	6 9/16	9 1/8	18.30	35.00
3	7 1/2	9 7/8	28.30	47.00

With screw or flange ends, for 125 pounds working steam pressure.

Size In.	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	Flanged	No. 228	No. 933
2	5 5/8	8	8.30	9.70
2 1/2	7	9	10.50	12.00
3	7 7/8	10 1/8	12.00	15.00
3 1/2	9	10 15/16	16.00	20.00
4	9 5/8	11 3/4	20.00	25.00
4 1/2	10 11/16	12 3/4	24.50	30.00
5	11 1/2	13 7/8	27.50	36.00
6	12 9/16	14 5/8	33.00	48.00
8	...	17 7/8	....	80.00

EXTRA HEAVY PATTERN

With screw or flange ends, for 250 pounds working steam pressure.

Size In.	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	*Flanged	No. 324	No. 323
2	7	10 1/16	26.00	28.00
2 1/2	7 7/8	11 7/16	30.00	32.00
3	8 7/8	12 7/16	33.00	36.00
3 1/2	9 5/8	13 3/8	39.00	41.00
4	10 5/8	14 3/4	42.00	45.00
4 1/2	...	15 9/16	....	52.00
5	...	16 3/8	....	60.00
6	...	18	....	72.00
7	...	20	....	95.00
8	...	21 3/4	....	115.00

*Over raised faces.

These valves may be used in a horizontal or vertical flow. They have a practically straightway flow channel. Two bronze side plugs provided as disc carrier bearings which are renewable, as are all other parts. The seating surfaces are regrindable without removing valve body from pipe. Flow areas in excess of pipe areas.

LUNKENHEIMER BRONZE VALVES

NEEDLE VALVES

$\frac{1}{8}$ and $\frac{1}{4}$ -inch for 400 Pounds Steam Working Pressure
 $\frac{3}{8}$ and $\frac{1}{2}$ -inch for 300 Pounds; $\frac{3}{4}$ -inch for 250 Pounds
 Temperatures not in Excess of 550° Fahrenheit

No. 906, Globe



Fig. 6294A

No. 909, Globe with Union



Fig. 6294B

No. 907, Angle



Fig. 6294C

No. 908, Cross



Fig. 6294D

Valves with steel stem are suggested for service demanding rather limited seat-openings but unless otherwise specified, the bronze stem patterns will be furnished. Thirty degrees is the Lunkenheimer standard for the included angle of the tapered seating face at end of stem.

WITH STEEL STEM, ROUGH BODY, FINISHED TRIMMINGS

Size Inches	Diam. of Seat Opening Inches	PRICE, EACH			
		No. 906 Globe	No. 907 Angle	No. 908 Cross	No. 909 Globe with Union
$\frac{1}{8}$	$\frac{3}{16}$	.60	.60	.90	.75
$\frac{1}{4}$	$\frac{3}{16}$	.70	.70	1.20	.90
$\frac{3}{8}$	$\frac{3}{16}$	.80	.80	1.45	1.10
$\frac{1}{2}$	$\frac{3}{16}$	1.45	1.45	2.25	1.80
$\frac{3}{4}$	$\frac{3}{16}$	1.85	1.85	2.85	2.95

WITH BRONZE STEM, ROUGH BODY, FINISHED TRIMMINGS

Size Inches	Diam. of Seat Opening Inches	PRICE, EACH			
		No. 906 Globe	No. 907 Angle	No. 908 Cross	No. 909 Globe with Union
$\frac{1}{8}$	$\frac{1}{8}$	.65	.65	.95	.80
$\frac{1}{4}$	$\frac{3}{16}$	.75	.75	1.25	.95
$\frac{3}{8}$	$\frac{1}{4}$	.85	.85	1.50	1.15
$\frac{1}{2}$	$\frac{5}{16}$	1.60	1.60	2.40	1.95
$\frac{3}{4}$	$\frac{7}{16}$	2.00	2.00	3.00	3.10
1	$\frac{9}{16}$	4.50	4.50	....	....

Needle valves for higher pressures and temperatures than above mentioned; of anti-acid or other special metals; with special finishes; with special operating handles; of the Lunkenheimer union bonnet construction; with soldering, brazing, or S. A. E. Standard flared tubing unions, are procurable on special order.

BUTTERFLY AND THROTTLE VALVES

BUTTERFLY VALVES



Fig. 611A



Fig. 611B

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
¾	3.10	1½	6.75	3	21.00
1	4.40	2	10.00	..	..
1¼	5.65	2½	13.75	..	..

IRON BODY, BRASS MOUNTED

WITH SCREWED AND FLANGED ENDS

Size In.	PRICE, EACH In. Serd.	Size In.	PRICE, EACH In. Serd.
	Flgd.		Flgd.
1½	6.35	7.50	16.00
1½	7.00	8.50	18.50
2	8.00	9.50	28.50
2½	9.50	11.50	42.50
3	12.00	15.00	47.00

THROTTLE VALVES



Fig. 611C

**BRASS
WITH SCREWED ENDS**

Size In.	Price Each	Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4}$	10.00	$1\frac{1}{4}$	14.00	2	25.00
1	11.50	$1\frac{5}{8}$	20.00	$2\frac{1}{2}$	35.00

**IRON BODY
WITH SCREWED ENDS**

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
2	22.50	3	40.00	4	60.00
2½	30.00	3½	50.00		

**LUNKENHEIMER LEVER
THROTTLING VALVES**



Fig. 611D

Fig. 611E

Sizes up to 3 inches inclusive for 175 pounds working steam pressure; $3\frac{1}{2}$ and 4 inches, 125 pounds; 5 and 6 inches, 100 pounds.

No. 431, BRONZE

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
$\frac{1}{2}$	2.50	$1\frac{1}{4}$	5.00	$2\frac{1}{2}$	19.00
$\frac{3}{4}$	3.00	$1\frac{1}{2}$	7.00	...	...
1	4.00	2	10.00	...	...
No. 432, IRON BODY					
2	8.50	$3\frac{1}{2}$	25.00	6	40.00
$2\frac{1}{2}$	16.00	4	30.00	...	...
3	20.00	5	35.00	...	...

HANDY GATE VALVES



Fig. 611F

Fig. 611G

For working pressure not to exceed 75 pounds.

No. 430, BRONZE

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
1/6	1.60	1 1/2	5.00	3 1/2	40.00
3/4	1.80	2	7.50	4	60.00
1	2.50	2 1/2	13.50	**	**
1 1/4	3.50	3	19.00	**	**
No. 628, IRON BODY					
2	7.00	3 1/2	18.00	5	30.00
2 1/2	12.00	4	21.00	6	42.00
3	15.00	4 1/4	25.00	8	90.00

LUNKENHEIMER IRON BODY VALVES

FERRENEWO GLOBE AND ANGLE VALVES

For 150 Pounds Steam Working Pressure

REGRINDABLE AND RENEWABLE NICKEL SEAT AND DISC

No. 1021, Globe



Fig. 8508A

No. 1022, Angle



Fig. 8508B

The Ferrenewo is a modified Renewo, the difference being in the material used in the body, which is a special ferrous composition, formulated particularly for this valve. It is the first to meet the peculiar demands of steam service for small sized valves.

Tensile tests of this iron show that its strength is about 30,000 pounds per square inch when the test bar is $\frac{1}{2}$ inch in diameter.

Every part of the valve is renewable, and this includes the seat and disc—the parts subject to the greatest wear—thereby making the valve practically indestructible.

Prior to the development of the Ferrenewo the use of small size globe, angle, cross and check valves with ferrous bodies was, for wise and sufficient reasons, not considered consistent with good engineering practice; and the Ferrenewo was not released to the market until the full merit of its body material had been soundly established.

All iron patterns of Ferrenewo Valves, Nos. 1113, 1114 and 1115, for cyanides, creosote, and alkaline solutions are furnished on request.

Up to $1\frac{1}{2}$ inches, inclusive, these valves are furnished with hexagon bonnet rings. The 2-inch size has a round slotted ring. The stuffing boxes are provided with gland follower on all sizes above $\frac{1}{2}$ inch.

Size In.	Face to Face Inches	Center to Face Inches	PRICE, EACH		Size In.	Face to Face Inches	Center to Face Inches	PRICE, EACH	
			No. 1021 Globe	No. 1022 Angle				No. 1021 Globe	No. 1022 Angle
$\frac{1}{4}$	$2\frac{9}{16}$	$1\frac{3}{16}$	1.10	1.10	1	$4\frac{1}{8}$	$1\frac{15}{16}$	2.80	2.80
$\frac{3}{8}$	$2\frac{1}{16}$	$1\frac{5}{16}$	1.25	1.25	$1\frac{1}{4}$	$4\frac{3}{4}$	$2\frac{1}{4}$	4.00	4.00
$\frac{1}{2}$	3	$1\frac{7}{16}$	1.60	1.60	$1\frac{1}{2}$	$5\frac{1}{4}$	$2\frac{3}{16}$	5.50	5.50
$\frac{3}{4}$	$3\frac{9}{16}$	$1\frac{5}{8}$	2.20	2.20	2	$6\frac{1}{4}$	3	8.75	8.75

LUNKENHEIMER GLOBE AND ANGLE VALVES

IRON BODY, BRONZE MOUNTED

OUTSIDE SCREW, FLANGED YOKE BONNET

For 125 Pounds Working Steam Pressure

Screwed

No. 1120, Globe



Fig. 4785A

Flanged
No. 1123, Globe

Fig. 4785C

With the introduction of Lunkenheimer Iron Body Outside Screw Flanged Yoke Bonnet Valves, the trade is offered a line of quality valves unequalled in efficiency and service.

The areas are generous, the proportions excellent and the materials formulated particularly for valve service.

No. 1121, Angle



Fig. 4785B



Fig. 4785D

Size Inches	Face to Face Inches	Center to Face Inches	Diam. Flanges Inches	Pc-e No. 1123, Globe No. 1124, Angle Each	
				Size Inches	Face to Face Inches
2	6 $\frac{3}{8}$	3 $\frac{3}{8}$	11.50	2	7 $\frac{3}{4}$
2 $\frac{1}{2}$	7 $\frac{3}{8}$	3 $\frac{11}{16}$	15.00	2 $\frac{1}{2}$	8 $\frac{3}{4}$
3	8 $\frac{3}{8}$	4 $\frac{3}{16}$	18.50	3	9 $\frac{1}{2}$
3 $\frac{1}{2}$	9	4 $\frac{1}{2}$	24.50	3 $\frac{1}{2}$	10 $\frac{1}{2}$
4	10	5	31.00	4	11 $\frac{3}{8}$
4 $\frac{1}{2}$	11 $\frac{1}{8}$	5 $\frac{5}{16}$	38.00	4 $\frac{1}{2}$	12 $\frac{1}{8}$
5	12	6	46.00	5	12 $\frac{3}{4}$
6	13 $\frac{1}{8}$	6 $\frac{5}{16}$	61.00	6	14 $\frac{3}{8}$
				7	16 $\frac{1}{8}$
				8	19 $\frac{1}{4}$
				10	24 $\frac{1}{4}$
				12	27 $\frac{1}{2}$
					12
					19

LUNKENHEIMER BRONZE GATE VALVES

DOUBLE DISC GATE VALVES

For 150 Pounds Working Pressure

RISING STEM, INSIDE SCREW

No. 427, Screwed



Fig. 8747A

The stuffing box can be packed when the valve is wide open and under pressure, as a shoulder on the stem directly above the threads forms a seat beneath the stuffing box.

The valve being double-seated will take pressure from either end.

No. 617, Flanged



Fig. 8747B

Size In.	PRICE, EACH		Size In.	PRICE, EACH	
	No. 427 Screwed	No. 617 Flanged		No. 427 Screwed	No. 617 Flanged
1/4	1.10	...	1 1/4	3.50	7.70
5/8	1.10	2.60	1 1/2	5.00	10.50
1/2	1.30	3.00	2	7.50	14.00
3/4	1.90	4.00	2 1/2	14.00	21.00
1	2.50	5.30	3	20.00	32.00

No. 627 valves with one end flanged and the other pipe threaded are furnished on special order.

WEDGE DISC GATE VALVES

Screwed, for 200 Pounds Working Pressure;

B-H Flanged, for 150 Pounds

Working Pressure

STATIONARY STEM, INSIDE SCREW

No. 768, Screwed



Fig. 8747C

These valves are exceptionally well proportioned. The metal is so distributed as to give uniform strength throughout, and nothing but high grade bronze composition is used in the making.

No. 769, Flanged



Fig. 8747D

Size In.	PRICE, EACH		Size In.	PRICE, EACH	
	No. 768 Screwed	No. 769 Flanged		No. 768 Screwed	No. 769 Flanged
1/4	1.70	...	1 1/4	4.20	8.10
5/8	1.70	3.50	1 1/2	6.00	11.00
1/2	1.80	3.70	2	9.00	16.00
3/4	2.30	4.60	2 1/2	17.00	27.00
1	3.00	5.90	3	24.00	35.00

No. 770 valves with one end flanged and the other pipe threaded are furnished on special order.

LUNKENHEIMER IRON BODY VALVES CLIP GATE VALVES

BRONZE MOUNTED, BOLTED BONNET

RISING STEM, INSIDE SCREW

For 100 Pounds Working Pressure
No. 600, Screwed No. 600, Screwed



Fig. 2573A



Fig. 2573B

No. 638, Flanged



Fig. 2573C

Size Inches	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	Flanged	No. 600	No. 638
1/2	2	...	2.00	...
3/4	2 5/16	...	2.35	...
1	2 1/2	3 3/16	2.50	3.00
1 1/4	2 3/4	3 1/2	3.50	4.90
1 1/2	3 1/16	3 3/4	5.00	6.00
2	3 1/2	4	7.50	8.50
2 1/2	4	4 15/16	12.00	13.50
3	4 3/8	5 1/16	15.00	16.90
3 1/2	5	5 15/16	20.00	22.00
4	5 5/8	6 3/4	22.00	25.00
4 1/2	6 3/16	7 1/4	26.00	29.50
5	6 3/4	7 3/4	30.00	34.00
6	7 1/2	8 9/16	36.00	40.00

QUICK OPERATING, SLIDING STEM

For 50 Pounds Working Pressure
No. 639, Screwed



Fig. 2573D

No. 640, Flanged



Fig. 2573E]

Size Inches	FACE TO FACE INCHES		PRICE, EACH	
	Screwed	Flanged	No. 639	No. 640
1/2	2	...	2.00	...
3/4	2 5/16	...	2.35	...
1	2 1/2	3 1/16	2.50	3.50
1 1/4	2 3/4	3 1/2	4.90	5.00
1 1/2	3 1/16	3 3/4	6.00	6.00
2	3 1/2	4	8.50	8.50
2 1/2	4	4 15/16	12.00	12.00
3	4 3/8	5 1/16	15.00	15.00
3 1/2	5	5 15/16	20.00	20.00
4	5 5/8	6 3/4	22.00	22.00
4 1/2	6 3/16	7 1/4	26.00	26.00
5	6 3/4	7 3/4	30.00	30.00
6	7 1/2	8 9/16	40.00	40.00

NOTE—Clip Gate Valves can also be furnished in all iron. Prices upon application.

LUNKENHEIMER GATE VALVES

IRON BODY BRONZE MOUNTED

STANDARD

Sizes 2 to 8 Inches, for 125 Pounds Steam Working Pressure
 Sizes 10 to 24 Inches for 100 Pounds Steam Working Pressure

STATIONARY STEM, INSIDE SCREW
 No. 647 SCREWED No. 648 FLANGED



Fig. 1312A



Fig. 1312B

RISING STEM, OUTSIDE SCREW
 No. 47 SCREWED No. 48 FLANGED



Fig. 1312C



Fig. 1312D

STATIONARY STEM, INSIDE SCREW

Size.....	inches	2	2½	3	3½	4	4½	5
Price, No. 647, Screwed.....	each	11.20	14.00	18.00	21.50	26.50	32.00	36.00
" " 648, Flanged.....	"	11.20	14.00	18.00	21.50	26.50	32.00	36.00
Size.....	inches	6	7	8	10	12	14	15
Price, No. 647, Screwed.....	each	43.00	...	...	...	...	...	...
" " 648, Flanged.....	"	43.00	50.00	60.00	94.00	130.00	150.00	165.00
Size.....	inches	16	18	20	22	24	...	...
Price, No. 648, Flanged.....	each	190.00	225.00	300.00	400.00	500.00	...	...

RISING STEM, OUTSIDE SCREW

Size.....	inches	2	2½	3	3½	4	4½	5
Price, No. 47, Screwed.....	each	13.50	16.50	19.00	26.00	31.00	37.00	42.00
" " 48, Flanged.....	"	13.50	16.50	19.00	26.00	31.00	37.00	42.00
Size.....	inches	6	7	8	10	12	14	15
Price, No. 47, Screwed.....	each	49.00	...	...	...	...	...	...
" " 48, Flanged.....	"	49.00	70.00	80.00	110.00	142.00	160.00	180.00
Size.....	inches	16	18	20	22	24	...	...
Price, No. 48, Flanged.....	each	210.00	240.00	305.00	420.00	505.00	...	...

LUNKENHEIMER GATE VALVES

HEAVY
IRON BODY BRONZE MOUNTED
FOR 175 POUNDS WORKING PRESSURE

STATIONARY STEM, INSIDE SCREW, FLANGED BONNET

No. 602, SCREWED



Fig. 10603A

No. 603, FLANGED



Fig. 10603B

Regularly made with Valve-Iron body, bonnet and gland; Valve-Bronze stem, disc faces and seat rings; bronze gland and stuffing box bushings.

In the stationary stem, the unusually heavy proportion of the disc, which is cored out only to the extent necessary to receive the stem as the valve is opened, provides exceptional strength and rigidity.

Size In.	FACE TO FACE INCHES		PRICE, EACH		No. 602 Screw End	No. 603 Flange End
	Screw In.	Flange Inches	Diam. Screw	No. 602 Flanges		
2	4½	6½	6½	14.00	16.00	
2½	5¾	7½	7½	17.50	19.50	
3	5¾	8½	8½	22.50	25.50	
3½	5¾	8½	9	27.00	30.00	
4	6	9	10	33.00	36.00	
4½	6¾	9½	10½	38.00	41.00	
5	7½	10¼	11	45.00	48.00	
6	7¾	10¾	12½	53.00	60.00	
7	...	12½	14	...	82.00	
8	...	13½	15	...	93.00	
10	...	15½	17½	...	135.00	
12	...	16½	20½	...	185.00	
14	...	18	23	...	210.00	
15	...	18¾	24½	...	250.00	
16	...	20½	25½	...	275.00	

*Over raised faces.

Flanges have $\frac{1}{8}$ -inch raised face and are of the extra heavy weight schedule of American Standard for iron flanges.

RISING STEM, OUTSIDE SCREW

No. 642, SCREWED



Fig. 10603C

No. 643, FLANGED



Fig. 10603D

Regularly made with Valve-Iron body, bonnet, yoke and gland; Valve-Bronze stem, disc faces and seat rings; bronze yoke, gland and stuffing box bushings.

Size In.	FACE TO FACE INCHES		PRICE, EACH		Diam. Flanges Inches	No. 642 Screw End	No. 643 Flange End
	Screw End	Flange End	Diam. Screw	No. 642 Flange End			
2	4½	6½	6½	17.00	17.00	19.00	
2½	5¾	7½	7½	20.50	20.50	22.50	
3	5¾	8½	8½	23.50	23.50	26.00	
3½	5¾	8½	9	32.50	32.50	35.50	
4	6	9	10	39.00	39.00	42.00	
4½	6¾	9½	10½	46.50	46.50	49.50	
5	7½	10¼	11	52.00	52.00	55.00	
6	7¾	10½	12½	61.00	61.00	68.00	
7	...	12½	14	...	92.00		
8	...	13½	15	...	110.00		
10	...	15½	17½	...	155.00		
12	...	16½	20½	...	200.00		
14	...	18	23	...	220.00		
15	...	18¾	24½	...	250.00		
16	...	20½	25½	...	300.00		

*Over raised faces.

Nickel seating parts are procurable on special order, as are screw end valves in sizes 7 and 8 inches, and flange end valves with by-pass.

LUNKENHEIMER GATE VALVES

IRON BODY BRONZE MOUNTED
EXTRA HEAVY

For 250 Pounds Working Pressure

STATIONARY STEM
INSIDE SCREW, FLANGED BONNET
No. 887, SCREWED No. 888, FLANGED

Fig. 1853A



Fig. 1853B

Regularly made with Valve-Iron body, bonnet and gland; Valve-Bronze stem, disc faces and seat rings, bronze gland and stuffing box bushings.

Each individual part is renewable. Threaded seat rings are employed in all sizes. Stuffing box may be repacked when the valve is wide open and under pressure.

Size	FACE TO FACE		PRICE, EACH		No. 888
	Inches	Diam. In.	No. 887	Screw End	
1½	4½	5¾	6	25.00	25.00
2	5½	6½	31.00	31.00	
2½	6¾	7½	39.00	39.00	
3	8½	8½	47.00	47.00	
3½	7½	9	62.00	62.00	
4	7¾	9½	10	69.00	69.00
4½	... 10¾	10½	...	76.00	
5	12¾	11	...	100.00	
6	13½	12½	...	124.00	
7	15	14	...	150.00	
8	16½	15	...	180.00	
10	19	17½	...	250.00	
12	19¾	20½	...	320.00	
14	21¼	23	...	405.00	
15	22½	24½	...	475.00	
16	24	25½	...	560.00	

*Over raised faces.

Flanges have $\frac{1}{16}$ -inch raised face and are of the extra heavy weight schedule or American Standard for iron flanges.

RISING STEM
OUTSIDE SCREW, FLANGED
BONNET AND YOKE

No. 891, SCREWED No. 892, FLANGED



Fig. 1853C



Fig. 1853D

Regularly made with Valve-Iron body, bonnet, yoke and gland; Valve-Bronze stem, disc faces and seat rings; bronze gland and stuffing box bushings.

Size	FACE TO FACE		PRICE, EACH		No. 892
	INCHES	Diam. In.	Screw End	Flange End	
1½	4½	5¾	6	31.00	31.00
2	5½	6½	6½	36.00	36.00
2½	6¾	7½	7½	46.00	46.00
3	8½	8½	8½	54.00	54.00
3½	7½	9	9	69.00	69.00
4	7¾	9½	10	85.00	85.00
4½	...	10¾	10½	...	90.00
5	...	12½	11	...	115.00
6	...	13½	12½	...	140.00
7	...	15	14	...	165.00
8	...	16½	15	...	200.00
10	...	19	17½	...	265.00
12	...	19¾	20½	...	355.00
14	...	21¼	23	...	455.00
15	...	22½	24½	...	525.00
16	...	24	25½	...	610.00

*Over raised faces.

Nickel seating parts are procurable on special order, as are screw end valves, in sizes from $4\frac{1}{2}$ to 8 inches inclusive, and angle valves with flange ends.

MEDIUM IRON BODY GATE VALVES

WEDGE GATE, HARD METAL SEATS

For Steam Working Pressures, Sizes 16-inch and Smaller up to 175 Pounds; Size 18-inch up to 150 pounds WITH OUTSIDE SCREW AND YOKE

NON-RISING STEM



Fig. 3555A

FLANGED



Fig. 3555B



Fig. 3555C

SCREWED—NON-RISING STEM

Size, . . . in.	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Price, . . . ea.	15.00	17.00	20.00	25.00	28.00	35.00	40.00	50.00	75.00	87.00	120.00	145.00	185.00

FLANGED—NON-RISING STEM

Size inches	2	2½	3	3½	4	4½	5	6
Face to Face inches	7½	8	9½	10	10½	11	11½	12
Price each	17.50	19.50	23.00	28.00	33.00	40.00	45.00	57.00
Size inches	7	8	9	10	12	14	15	16
Face to Face inches	12½	13½	14	15	16	18	18¾	19½
Price each	82.00	94.00	127.00	153.00	195.00	300.00	350.00	400.00

FLANGED, WITH BY-PASS—NON-RISING STEM

Size inches	6	7	8	9	10	12	14	15	16	18
Size of By-pass inches	1¼	1¼	1½	1½	1½	2	2	2	3	3
Price each	85.00	110.00	125.00	158.00	185.00	230.00	340.00	390.00	450.00	575.00

WITH OUTSIDE SCREW AND YOKE

Size inches	2	2½	3	3½	4	4½	5	6	7
Size of By-pass inches	.....	.....	.....	.....	.....	.....	.....	1¼	1¼
Price, Screwed each	23.00	25.00	29.00	35.00	40.00	50.00	54.00	65.00	90.00
" Flanged "	25.50	27.50	32.00	38.00	45.00	55.00	59.00	72.00	97.00
" " with By-pass . . . . . "	.....	.....	.....	.....	.....	.....	.....	100.00	125.00
Size inches	8	9	10	12	14	15	16	18	20
Size of By-pass inches	1½	1½	1½	2	2	2	3	3	4
Price, Screwed each	110.00	145.00	170.00	215.00	.....	.....	.....	.....	.....
" Flanged "	117.00	152.00	178.00	225.00	340.00	400.00	450.00	600.00	775.00
" " with By-pass "	148.00	183.00	210.00	260.00	390.00	450.00	510.00	660.00	850.00

The use of screwed valves larger than 6-inch is not recommended. Valves 8-inch and larger should have a by-pass.

BRASS GATE VALVES

STANDARD



Fig. 19350A

HOSE



Fig. 19350C

SCREWED

Size Inches	Price Each	Size Inches	Price Each
1/4	1.45	2	7.30
3/8	1.45	2 1/2	13.00
1/2	1.65	3	19.00
5/8	2.05	*3 1/2	43.00
1	2.80	*4	58.00
1 1/4	3.70	*5	110.00
1 1/2	5.00	*6	165.00

FLANGED

Size Inches	Price Each	Size Inches	Price Each
2	25.00	*4	83.00
2 1/2	33.00	*5	135.00
3	39.00	*6	190.00
*3 1/2	68.00	.....	.....

*3 1/2 to 6-inch valves have flanged bonnets, non-rising stem and are made to order only.

SERVICE GATES



Fig. 19350B

Size Inches	Price Each	Size Inches	Price Each
1/2	1.65	1 1/4	3.70
3/4	2.05	1 1/2	5.00
1	2.80	2	7.30

WITH CAP AND CHAIN

Size Inches	PRICE, EACH		
	†Rough Body	†Finished	†Finished and N. P.
1	5.10	8.65	9.25
1 1/4	6.70	11.10	11.80
1 1/2	8.85	14.45	15.25
2	12.60	20.90	21.90
2 1/2	20.00	31.00	32.25
3	29.50	45.50	47.25

WITHOUT CAP AND CHAIN

1	3.35	6.90	7.50
1 1/4	4.70	9.10	9.80
1 1/2	6.25	11.85	12.65
2	9.00	17.30	18.30
2 1/2	15.00	26.00	27.25
3	22.00	38.00	39.75

†With iron wheel.

†With finished brass wheel.

QUICK OPENING



Fig. 19350D

Size Inches	Price Screwed Each	Size Inches	Price Screwed Each
3/4	3.60	2	11.80
1	4.80	2 1/2	20.25
1 1/4	6.20	3	30.00
1 1/2	8.50	...	...

BRASS AND IRON BODY EXPANSION JOINTS

IRON BODY

BRASS



Fig. 785A



Fig. 785B



Fig. 785C

BRASS—SCREWED, STANDARD TRAVERSE

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Traverse.....	"	2	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$
Price.....	each	1.50	2.20	2.75	4.00	5.00	8.00	17.50	24.00

BRASS—SCREWED, SPECIAL TRAVERSE

Traverse	Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
4 Inches	Price.....	each	3.80	4.00	4.90	6.30	7.40	9.10	....
6 "	"	"	....	8.25	9.00	10.00	11.50	13.50	24.00
8 "	"	"	....	9.00	10.00	11.25	13.00	15.50	27.00
10 "	"	"	....	9.75	11.00	12.50	14.50	17.50	30.00
12 "	"	"	....	10.50	12.00	13.75	16.00	19.50	33.00

IRON BODY—SCREWED, STANDARD TRAVERSE

Size...inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Traverse...in.	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	5	6	7	7	7	8
Price...each	7.00	8.00	10.00	14.00	18.00	30.00	38.00	45.00	70.00	100.00	110.00	160.00	225.00

IRON BODY—SCREWED, SPECIAL TRAVERSE

Traverse	Size...in.	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8
6 Inches	Price...each	11.00	13.00	17.50	25.00	30.00	40.00	45.00	55.00	....	....
10 "	"	16.00	19.00	25.00	35.00	42.00	52.00	62.00	80.00	100.00	140.00
12 "	"	18.50	22.00	29.00	40.00	48.00	60.00	70.00	92.50	115.00	160.00
14 "	"	21.00	25.00	33.00	45.00	54.00	67.00	78.00	105.00	130.00	....
16 "	"	23.50	28.00	37.00	50.00	60.00	75.00	86.00	117.50	145.00	....
18 "	"	26.00	31.00	41.00	55.00	66.00	....	94.00	130.00	....	....

IRON BODY—FLANGED, STANDARD TRAVERSE

Size.....	inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	10	12
Traverse.....	"	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	$3\frac{1}{2}$	4	5	5	5
Diameter of Flanges.....	"	6	7	$7\frac{1}{2}$	$8\frac{1}{2}$	9	$9\frac{1}{4}$	10	11	....	....	....	....
Price.....	each	15.00	16.00	18.50	25.00	30.00	40.00	48.00	55.00	....	....	....	....
Size.....	inches	7	8	9	10	12	14	15	16	....	....	....	....
Traverse.....	"	6	7	7	7	8	10	10	10	....	....	....	....
Diameter of Flanges.....	"	$12\frac{1}{2}$	$13\frac{1}{2}$	15	16	19	21	$22\frac{1}{4}$	$23\frac{1}{2}$	....	....	....	....
Price.....	each	80.00	110.00	120.00	175.00	250.00	500.00	550.00	600.00	....	....	....	....

IRON BODY—FLANGED, SPECIAL TRAVERSE

Traverse Size...in.	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	10	12	
6 In. Price, es. each	18.00	20.00	25.00	35.00	40.00	50.00	55.00	65.00	....	....	....	....
10 "	"	23.00	26.00	32.50	45.00	52.00	63.00	72.00	90.00	112.00	150.00	225.00	300.00
12 "	"	25.50	29.00	36.50	50.00	58.00	70.00	70.00	102.50	127.00	170.00	255.00	350.00
14 "	"	28.00	32.00	40.50	55.00	64.00	77.00	88.00	115.00	142.00	190.00	285.00	400.00
16 "	"	30.50	35.00	44.50	60.00	70.00	85.00	96.00	127.50	157.00	210.00	315.00	....
18 "	"	33.00	38.00	48.50	65.00	76.00	....	104.00	140.00	172.00	230.00	350.00	....

The expansion will average about 2 to 3 inches in 100 feet of pipe.

BRASS STEAM AND GAS SERVICE COCKS

STEAM COCKS

FLAT HEAD



Fig. 23089A

SQUARE HEAD



Fig. 23089B

GAS SERVICE COCKS

FLAT HEAD



Fig. 23089D

SQUARE HEAD



Fig. 23089E

STANDARD SQUARE OR FLAT HEAD STEAM COCKS

For Steam Working Pressure up to 100 Pounds

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/4	.85	1	2.35	2 1/2	14.50
3/8	1.00	1 1/4	3.70	3	22.50
1/2	1.25	1 1/2	4.85	*3 1/2	38.50
5/8	1.70	2	7.30	*4	50.00

*Furnished to order only.

HEAVY SQUARE OR FLAT HEAD STEAM COCKS

For Steam Working Pressures up to 125 Pounds

1/2	1.25	1 1/4	3.70	2 1/2	14.50
3/4	1.70	1 1/2	4.85	3	22.50
1	2.35	2	7.30	...	...

EXTRA HEAVY HARD METAL STEAM COCKS

For Steam Working Pressures up to 250 Pounds

1/4	1.40	1	3.60	2 1/2	23.00
3/8	1.75	1 1/4	6.00	3	35.00
1/2	1.75	1 1/2	7.75	...	...
5/8	2.40	2	11.50	...	...

THREE-WAY STEAM COCKS



Fig. 23089C

For Steam Working Pressures up to 100 Pounds

1/4	1.80	1	3.75	2 1/2	18.75
3/8	2.10	1 1/4	5.75	3	26.00
1/2	2.50	1 1/2	7.15	...	...
5/8	3.00	2	11.00	...	...

FOUR-WAY STEAM COCKS

With square head, in sizes 1/2 to 2 inches. Furnished to order only.

GAS SERVICE COCKS

FLAT HEAD



Fig. 23089D

SQUARE HEAD



Fig. 23089E

STANDARD FLAT HEAD, SQUARE HEAD AND TEE HEAD

PRICE, EACH		PRICE, EACH			
Size Inches	Without Check	With Check	Size Inches		
1/8	.90	---	1 1/4	3.25	3.70
1/4	.90	---	1 1/2	4.60	5.10
1/2	1.10	1.30	2	8.00	8.75
3/4	1.30	1.55	2 1/2	17.50	18.50
1	2.10	2.40	3	27.00	28.25

EXTRA HEAVY FLAT HEAD, SQUARE HEAD AND TEE HEAD

PRICE, EACH		PRICE, EACH			
Size Inches	Without Check	With Check	Size Inches		
1/8	1.10	---	1 1/4	4.50	4.95
1/4	1.10	---	1 1/2	6.50	7.00
1/2	1.20	1.35	2	11.20	11.95
3/4	1.30	1.50	2 1/2	24.50	25.50
1	1.80	2.05	3	37.80	39.05
	3.00	3.30			

WRENCHES

SQUARE HEAD



Fig. 23089F

FLAT HEAD



Fig. 23089G

SQUARE HEAD WRENCHES

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/4	.05	1	.14	2 1/2	.56
3/8	.06	1 1/4	.19	3	.56
1/2	.07	1 1/2	.25	3 1/2	1.00
5/8	.09	2	.44	4	1.00

FLAT HEAD WRENCHES

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1/2	.07	1	.14	1 1/2	.44
5/8	.09	1 1/4	.25		.56

IRON COCKS

SQUARE HEAD



Fig. 14522A

FLAT HEAD



Fig. 14522B

THREE-WAY



Fig. 14522C

STANDARD, SCREWED—For Working Pressures up to 125 Pounds

Size.....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Price, All Iron.....	each	.90	1.05	1.30	1.60	1.95	2.70	4.40
" " with Brass Washer "		1.00	1.20	1.55	1.95	2.35	3.20	5.15
" " " Plug .. "		1.30	1.60	1.90	2.65	3.75	5.25	8.75
" " Br. Plg. and Wst. "		1.40	1.75	2.15	3.00	4.15	5.75	9.50
Size.....	.....inches	3	$3\frac{1}{2}$	4	5	6	8	....
Price, All Iron.....	each	6.75	12.00	15.50	32.00	45.00	100.00	....
" " with Brass Washer "		7.75	14.00	19.00	38.00	53.00	110.00	....
" " " Plug .. "		13.00	27.50	36.50	67.00	94.00	200.00	....
" " Br. Plg. and Wst. "		14.00	29.50	40.00	73.00	102.00	210.00	....

STANDARD, FLANGED—For Working Pressures up to 125 Pounds

Size.....	.....inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Price, All Iron.....	each	4.25	6.25	9.50	15.00
" " with Brass Washer	"	4.75	7.00	10.50	17.00
" " " Plug"	"	7.00	10.50	15.75	30.00
" " " and Washer....."	"	7.50	11.25	16.75	32.00
Size.....	.....inches	4	5	6	8
Price, All Iron.....	each	19.00	36.00	50.00	110.00
" " with Brass Washer	"	22.50	42.00	58.00	120.00
" " " Plug"	"	40.00	70.00	100.00	210.00
" " " and Washer....."	"	43.50	76.00	108.00	220.00

$\frac{1}{2}$ to 2 inches are furnished flat head. Square head cocks will be furnished unless otherwise ordered.

EXTRA HEAVY—SCREWED—For 200 Pounds Working Pressure

Size .....	.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4
Price, All Iron.....	each	1.15	1.25	1.75	2.10	2.80	3.65	6.50	9.00	22.50
" " with Brass Washer .."	"	1.25	1.40	2.00	2.45	3.20	4.15	7.25	10.00	26.00
" " " Plug"	"	1.70	2.25	2.80	3.85	5.60	7.00	13.25	19.00	56.00
" " " Br. Plg. and Wst. .."	"	1.80	2.40	3.05	4.20	6.00	7.50	14.00	20.00	59.50

THREE-WAY—SCREWED—For Working Pressures up to 125 Pounds

Size.....	.....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6
Price, All Iron.....	each	1.65	1.80	2.05	2.65	3.65	5.35	7.50	14.00	19.00	36.50	52.00
" " with Brass Washer .."		1.80	2.05	2.40	3.05	4.15	6.10	8.50	16.00	22.50	42.50	60.00
" " " Plug"		2.20	2.40	3.10	4.50	6.25	9.75	13.75	30.00	40.00	71.50	100.00
" " " Br. Plg. and Wst. .."		2.35	2.65	3.45	4.90	6.75	10.50	14.75	32.00	43.50	77.50	108.00

Flanged three-way cocks can also be furnished, prices quoted upon receipt of request. All cocks will be furnished with check when so ordered, at a special price.

LUNKENHEIMER BLOW-OFF VALVES

DURO IRON BODY BLOW-OFF VALVES

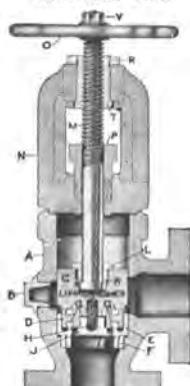
FOR 250 POUNDS STEAM WORKING PRESSURE
OUTSIDE SCREW, FLANGED YOKE BONNET

No. 896, Screwed



Fig. 5663A

Sectional View



No. 897, Flanged



Fig. 5663B

ALLOY DISC FACE, BRONZE SEAT AND SEAT BUSHING

Size.....	inches	1 1/4	1 1/2	2	2 1/2
Price, No. 896, Screwed.....	each	10.70	12.50	16.00	21.00
" " 897, Flanged.....	"	12.00	14.00	18.00	23.00

SOLID NICKEL DISC, SEAT AND SEAT BUSHING

Size.....	inches	1 1/4	1 1/2	2	2 1/2
Price, No. 896, Screwed.....	each	13.20	15.50	19.50	25.50
" " 897, Flanged.....	"	14.50	17.00	21.50	27.50

Unless nickel seating parts are specified, valves will be furnished with iron disc, special disc face alloy, and bronze seat, ring and seat bushing.

RENEWO BRONZE STRAIGHTWAY OR Y BLOW-OFF VALVES

STEAM WORKING PRESSURES, MEDIUM SCREWED, 200 POUNDS; EXTRA HEAVY SCREWED, 300 POUNDS; MEDIUM B-H FLANGED, 150 POUNDS; EXTRA HEAVY B-X FLANGED, 250 POUNDS
UNION BONNET, RENEWABLE NICKEL SEAT AND DISC



Fig. 5663C

The Lunkenheimer Renewo Blow-off Valve should be connected to receive pressure beneath the disc. Repackable under pressure when wide open.

The union bonnet construction provides exceptional rigidity and facilitates regrinding, should the seating surfaces become worn. The bonnet ring is hexagon shaped in all sizes up to 1 1/2 inches inclusive. The 2 and 2 1/2-inch sizes have a round slotted ring.

Valves with British Standard pipe threads are procurable on special order.

Order should specify number of valve and size.

Size.....	inches	3/4	1	1 1/4	1 1/2	2	2 1/2
Price, No. 180, Medium, Screwed.....	each	9.00	10.50	14.50	19.00	30.00	60.00
" " 183, Extra Heavy, Screwed.....	"	13.00	16.50	20.50	35.00	49.00	94.00
" " 181, Medium, BH Flanged.....	"	....	23.00	29.00	37.00	63.00	96.00
" " 184, Extra Heavy, BX Flanged.....	"	....	30.00	35.00	53.00	87.00	130.00

LUNKENHEIMER DURO BLOW-OFF VALVES

IRON BODY, BRONZE MOUNTED

PARTS LIST

FOR Nos. 896 AND 897

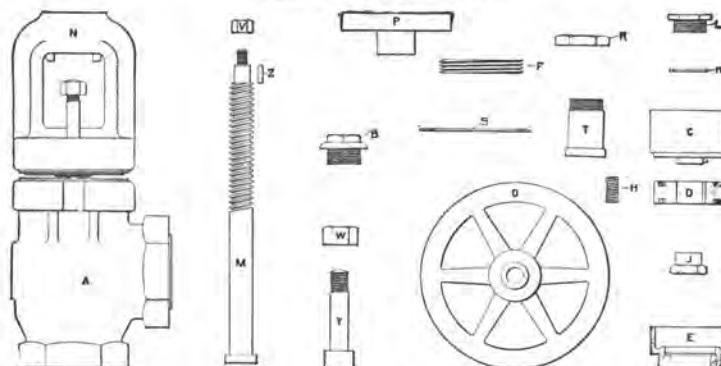


Fig. 8969A

Size		inches	1 1/4	1 1/2	2	2 1/2
A—Body, Iron with Bronze Ring for Seat, Screwed	each	5.35	6.25	8.00	10.50	
A— " " " Flanged	"	6.00	7.00	9.00	11.50	
A— " " Nickel " " Screwed	"	6.35	7.55	9.50	12.50	
A— " " " Flanged	"	7.00	8.30	10.50	13.50	
B—Cleaning Plug, Bronze	"	.45	.50	.70	1.30	
C—Disc Guide, Iron with Bronze Stud H	"	.85	.90	1.00	1.50	
D— " Alloy Faces, Iron	"	.60	.70	.95	1.30	
D— " " " Valve—Nickel	"	1.20	1.60	2.50	4.00	
E—Seats, Bronze	"	.65	.75	1.40	2.00	
E— " Valve Nickel	"	1.40	1.80	2.70	3.75	
F—Body Ring for Seat, Bronze	"	.30	.35	.80	1.30	
F— " " " Nickel	"	.70	.85	1.40	2.20	
H—Disc Guide Studs, Bronze	"	.07	.10	.15	.20	
J— " Locknuts, Bronze	"	.45	.50	.60	.75	
K— " " Washers, Brass	"	.04	.04	.05	.07	
L— " Guide Locknuts, Bronze	"	.35	.45	.50	.60	
M—Stems, Bronze	"	2.50	3.00	4.50	5.40	
N—Yokes, Iron, with Stuffing Box, Studs and Nuts	"	2.10	2.70	3.40	4.60	
O—Handwheels, Iron	"	.75	.85	1.30	1.50	
P—Stuffing Box Glands, Iron	"	.35	.45	.50	.75	
R—Yoke Bushing Locknuts, Bronze	"	.35	.45	.50	.60	
S—Copper Gaskets	"	.07	.09	.10	.14	
T—Yoke Bushings, Bronze	"	1.80	1.80	2.00	2.20	
V—Handwheel Locknuts, Steel	"	.05	.05	.07	.07	
W—Yoke Bolts Nuts, Steel	per set	.10	.10	.10	.12	
Y— " " Steel	per pound	.70	.70	.70	.70	
Disc Face Alloy						

LUNKENHEIMER IRON BODY AND CAST STEEL VALVES

SAFETY NON-RETURN GLOBE AND ANGLE VALVES

Iron Body—For 250 Pounds Working Pressure; 450° F.
Cast Steel—For 350 Pounds Working Pressure; 800° F.

No. 1407, Globe, Iron Body
 No. 1409, Globe, Cast Steel
 Flanged

No. 1408, Angle, Iron Body
 No. 1410, Angle, Cast Steel
 Flanged



Fig. 3346A



Fig. 3346B

As chattering of the disc upon its seat is extremely detrimental to the life of the valve the Lunkenheimer Safety Non-return Valve is designed to eliminate this objection by permitting the adjustment of the tension of outside spring. Valves are shipped with but a slight tension on spring. Proper adjustment to suit conditions of each installation is easily made by observing the movement of the lever to which the spring is attached. All parts subjected to wear, including the disc and seat, are renewable, and in addition, the seating surfaces are regrindable. Valves may be attached with stem in horizontal or vertical plane.

Size Inches	FACE TO FACE GLOBE, INCHES		CENTER TO FACE ANGLE, INCHES		PRICE, EACH		
	Screwed	Flanged	Screwed	Flanged	IRON BODY No. 1441, Globe No. 1442, Angle	Cast Steel No. 1407, Globe No. 1408, Angle	
3	11 3/4	12 1/2	5 7/8	6 1/4	65.00	68.00	240.00
3 1/2	12 3/4	13 1/2	6 3/8	6 3/4	78.00	81.00	300.00
4	13	14	6 1/2	7	86.00	90.00	330.00
4 1/2	....	15	...	7 1/2	....	100.00	390.00
5	....	15 3/4	...	7 7/8	....	115.00	420.00
6	....	17 1/2	...	8 3/4	....	135.00	540.00
7	....	19 1/4	...	9 5/8	....	180.00	630.00
8	....	21 3/4	...	10 1/2	....	230.00	840.00
10	....	25 3/8	...	12 1/4	....	400.00	1200.00

POP SAFETY AND WATER RELIEF VALVES

LUNKENHEIMER POP SAFETY VALVES BRONZE FOR STEAM BOILERS

No. 629
Angle Outlet



Fig. 6896A

Provided with lock key attachment to guard against being tampered with, and provision is made for inserting inspector's seal. Adjustments of pop and pressure can be made from the outside of the valve without taking it apart.

The spring rests between ball and socket plates, which equally divide the pressure on the disc, and as the spring is encased, the valve can not be affected by back pressure.

Bevel seats, at an angle of 45 degrees to the vertical axis, are provided with suitable levers, by means of which the discs can be raised from their seats.

Size	Price	Size	Price	Size	Price
In.	Each	In.	Each	In.	Each
5/8	6.00	1	8.20	2	19.50
1/2	6.50	1 1/4	9.80	2 1/2	30.00
3/4	7.00	1 1/2	12.40	3	41.00

Also furnished both ends female.

Valves set below 15 pounds or above 250 pounds furnished by special order.

AMERICAN HOUSE HEATER POP SAFETY VALVES BRONZE

This valve has been adopted as a standard by the leading manufacturers of house-heating boilers. Its operation is the same as that of high pressure pop safety valves.

The body and all working parts are bronze, base of malleable iron.

Meets requirements of various state laws and certain Canadian provinces.

Size	Price	Size	Price	Size	Price
In.	Each	In.	Each	In.	Each
1/2	5.25	1 1/2	8.25	3 1/2	50.00
3/4	5.25	2	11.25	4	80.00
1	6.00	2 1/2	26.00	...	....
1 1/4	6.75	3	37.00	...	....



Fig. 6896B

LUNKENHEIMER RELIEF VALVES BRONZE FOR LIQUIDS

No. 986
Angle Outlet



Fig. 6896C

Made in rough bronze, with regulating screw, encased spring, screw or flange and screw ends.

Can be furnished also with finished bronze regulating wheel, flange inlet and female outlet, cap covering adjusting screw, nickel-plated finish, and special pressure settings below 15 pounds and above 250 pounds.

Size	PRICE, EACH	Size	PRICE, EACH		
In.	Male Screw	In.	Male Screw		
3/8	4.20	4.20	1 1/2	7.70	7.70
1/2	4.30	4.30	2	12.50	12.50
3/4	4.50	4.50	2 1/2	19.00	19.00
1	5.00	5.00	3	31.00	31.00
1 1/4	6.00	6.00	...	...	...

State pressure at which valve is to relieve.

V. & K. ADJUSTABLE WATER RELIEF VALVES

Designed especially to protect pneumatic water supply systems against excessive pressure.

Designed to operate more positively and will open full capacity almost immediately when the maximum pressure is reached in which the valve is set for, and closes tight when the pressure is reduced a very little.



Fig. 6896D

No.	Set to Operate At, Pounds	Size Pipe Opening, In.	Price Each
1	85	1/2	3.40
2	85	2/4	4.50

Regularly set at 85 pounds but may be adjusted for any pressure between 50 and 125 pounds. Can also be furnished in non-adjustable type.

LUNKENHEIMER VIGILANT SAFETY WATER COLUMNS

IRON BODY, BRONZE MOUNTED

For 250 Pounds W. S. P.

No. 919
Sectional View



Fig. 39756A

provided, allowing the "Vigilant" to be made either right or left-hand by simply transposing gauge cocks and plugs. All sizes except No. 6 are made with water connection on the back of the body and steam connection into top of bonnet. No. 6 has back connections on body for both water and steam, 14 inches between centers, and is especially designed for B. & W. Boilers.

Size	number	4	5	6	7	8	9	11	12
Price, No. 919 with Screw Connections	each	26.00	28.00	30.00	34.00	40.00	.....	.....	.....
Price, No. 1258 w i t h Flange Connections,	each	.....	.....	.....	.....	.....	48.00	40.00	40.00

WATER GAUGES

SELF-CLEANING WATER GAUGES



Fig. 28952A

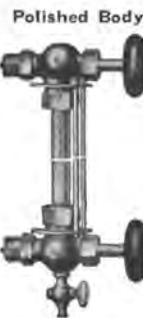


Fig. 28952B

LIGHT PATTERN WATER GAUGES



Fig. 28952D



Fig. 28952E

MODEL 3G ROUGH BODY

Sand blasted and lacquered. Iron wheels. Two guards.

No.	3G3	3G4	3G5
Shank... inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Glass.... "	$\frac{5}{8} \times 10$	$\frac{5}{8} \times 12$	$\frac{3}{4} \times 16$
Price..... each	4.25	4.50	6.00

MODEL 9G POLISHED BODY

Wood wheels. Two guards. The upper and lower arms are each cast in one piece, thus avoiding the joints found in most other makes and preventing the possibility of leaks.

Number.....	9G3	9G4	9G5
Shank... inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Glass.... "	$\frac{5}{8} \times 10$	$\frac{5}{8} \times 12$	$\frac{3}{4} \times 16$
Price..... each	5.70	6.00	6.50

SAFETY AUTOMATIC WATER GAUGES



Fig. 28952C

Square body, polished, wood wheels, four guards.

Number.....	19G4
Shank... inches	$\frac{1}{2}$
Glass.... "	$\frac{5}{8} \times 12$
Price..... each	7.50
Number.....	19G5
Shank... inches	$\frac{3}{4}$
Glass.... "	$\frac{3}{4} \times 16$
Price..... each	9.50

Furnished with brass wheels if desired.



Fig. 28952F

Rough body. Sand blasted and lacquered. Two guards.

Number.....	1G3
Shank... inches	$\frac{3}{8}$
Glass.... "	$\frac{5}{8} \times 10$
Price..... each	2.75
Number.....	1G4
Shank... inches	$\frac{1}{2}$
Glass.... "	$\frac{5}{8} \times 12$
Price..... each	3.00

GAUGE GLASSES AND CUTTERS

SCOTCH GAUGE GLASSES



Fig. 8058A

Warranted the equal of any in the market. Lengths not regular, charged the price of next longer tubes of the same diameter. Glasses are carefully packed and we are not responsible for breakage. Each package contains half dozen glasses.

Length.....inches	10	11	12	13	14	15	16	17	18
Price, $\frac{1}{2}$ and $\frac{5}{8}$ -in...per dozen	3.00	3.24	3.60	3.84	4.20	4.44	4.80	5.04	5.40
" $\frac{3}{4}$ -inch....."	3.60	3.96	4.32	4.80	5.16	5.52	5.88	6.24	6.60
" $\frac{7}{8}$ "	5.04	5.64	6.12	6.60	7.08	7.56	8.16	8.64	9.12
" 1 "	6.12	6.72	7.32	7.92	8.52	9.12	9.72	10.32	10.92

Length.....inches	19	20	22	24	30	36	48	60	72
Price, $\frac{1}{2}$ and $\frac{5}{8}$ -in...per dozen	5.64	6.00	6.60	7.20	9.00	10.80	14.52	18.12	21.84
" $\frac{3}{4}$ -inch....."	7.08	7.44	8.16	8.88	11.16	13.44	18.00	22.56	27.12
" $\frac{7}{8}$ "	9.60	10.20	11.16	12.12	15.24	18.24	24.36	30.48	36.48
" 1 "	11.52	12.12	13.44	14.64	18.24	21.96	29.16	36.48	43.80

60x1 $\frac{1}{4}$ inches, per dozen, 60.00. 72x1 $\frac{1}{2}$ inches, per dozen, 108.00.

LUBRICATOR GLASSES WITH FUSED ENDS



Fig. 8058B

We carry a large stock of all the principle sizes. Special sizes imported to order.

GAUGE GLASS CUTTERS

"CHESTERTON"



Fig. 8058C

"BOSTON"



"SIMPLEX"

Fig. 8058D



Fig. 8058E

"Chesterton." In this cutter the sliding lever can be placed close to the work, and thus more power can be obtained and the steel cutting wheel used for a long period. It is a handy tool and no kit is complete without it.

"Fletcher." This cutter has improved lever attachment, large rest and diamond cutter. It is quick and easy to operate and is accurate.

"Simplex." Will trim off the smallest length of piece desired. A good inexpensive cutter.

Price, "Chesterton"	each	2.00
" " "Boston"	"	1.50
" " "Simplex"	"	.40

GAUGES

HIGH PRESSURE



Fig. 23977A

LOW PRESSURE



Fig. 23977B

VACUUM



Fig. 23977C

	Brass Ring	N. P. Ring
Size, Dial..... inches	$4\frac{1}{2}$	$4\frac{1}{2}$
Price, High Pressure, Graduated 0-60, 100 and 200 Pounds... each	8.00	8.20
" Low " " 0-30 Pounds	8.00	8.20
" Vacuum, 0-30 Inches..... "	8.00	8.20

Larger or smaller gauges quoted upon application.

COMPOUND
PRESSURE AND VACUUM

Fig. 23977D

VAPOR HEATING



Fig. 23977E

ALTITUDE



Fig. 23977F

	Brass Ring	N. P. Ring
Size, Dial..... inches	$4\frac{1}{2}$	$4\frac{1}{2}$
Price, Compound Pressure and Vacuum, Graduated 0-15 Pounds Pressure 0-30 Inches Vacuum.....each	12.00	12.20
Price, Low Pressure for Vapor Heating, Graduated in Ounces, 0-6 Pounds.....each	12.00	12.20
Price, Altitude, Graduated in "Feet of Water," 0-70 Feet..... "	12.00	12.20

Larger or smaller gauges quoted upon application.

The gauges are made with black enameled case with ring held by two screws which allows easy access to the gauge.

WHISTLES AND WHISTLE VALVES

WITHOUT VALVE



Fig. 10395A

WITH VALVE



Fig. 10395B

CHIME



Fig. 10395D



Fig. 10395E

Diam. Inches	Size Pipe Connections Inches	PRICE, EACH	
		Without Valve	With Valve
1	3/8	2.20	3.10
1 1/4	3/8	2.75	3.75
1 1/2	1/2	3.00	4.00
2	3/4	4.35	5.50
2 1/2	3/4	5.25	6.50
3	1	7.25	8.50
3 1/2	1	9.50	11.50
4	1 1/4	12.00	15.00
5	1 1/2	19.00	22.50
6	2	24.00	33.00
8	2 1/2	70.00	95.00
10	2 1/2	175.00	225.00
12	3	350.40	425.00

Diam. Inches	Size of Bell Inches	Size of Connection Inches	PRICE, EACH	
			Without Valve	With Valve
1 1/2	3/8	1 1/2	4.50	7.50
2	1/2	5.00	8.00	
3	3/4	9.50	14.00	
4	1	15.00	20.00	
5	1 1/4	28.00	35.00	
6	1 1/2	42.00	50.00	
8	2	95.00	110.00	
10	2 1/2	190.00	210.00	

THREE BELL CHIME WHISTLES



Fig. 10395F

No. 1

Composed of one, each, 1 1/2, 2 and 2 1/2 inch whistles. Steam pipe, 1 inch.

Price.....each

No. 2

Composed of one, each, 3, 4 and 5 inch whistles. Steam pipe, 1 1/2 inch.

Price.....each

WHISTLE VALVES



Fig. 10395C

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
3/8	2.00	1	3.50	2	19.00
1/2	2.50	1 1/4	5.00	2 1/2	18.00
3/4	3.00	1 1/2	6.00	3	27.00

LUNKENHEIMER AIR AND STEAM GAUGE COCKS

AIR COCKS—HEXAGON SHOULDER
"T" HANDLE

No. 476, MALE END



Fig. 1531A

No. 477, MALE BOTH ENDS



Fig. 1531B

No. 478, BIBB NOSE



Fig. 1531C

Size	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Price, No. 476, Male End	each	.45	.60	.85	1.20
" " 477, " Both Ends	"	.55	.70	.95	1.40
" " 478, Bibb Nose	"	.70	.85	1.15	1.60

LEVER HANDLE

No. 980, MALE END



Fig. 1531D

No. 981, MALE BOTH ENDS



Fig. 1531E

No. 479, BIBB NOSE



Fig. 1531F

Size	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Price, No. 980, Male End	each	.55	.70	.95	1.30
" " 981, " Both Ends	"	.65	.80	1.05	1.50
" " 479, Bibb Nose	"	.80	.95	1.25	1.70

STEAM GAUGE COCKS

No. 475, "T" HANDLE
MALE AND FEMALE

No. 474, "T" HANDLE
FEMALE BOTH ENDS



Fig. 1531G



Fig. 1531H

No. 979, LEVER HANDLE
MALE UNION, FEMALE END



Fig. 1531J

Size	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$
Price No. 474, "T" Handle, Female Both Ends.....	each	.75	.85	.95
" " 475, " " Male and Female	"	.75	.85	.95
" " 212, " " Female with Union.....	"	1.25	1.35	1.45
" " 977, Lever Handle, Female Both Ends...	"	.90	1.00	1.10
" " 978, " " Male and Female	"	.90	1.00	1.10
" " 979, " " Female with Union ...	"	1.40	1.50	1.60

LUNKENHEIMER SPRING KEY COCKS

TEE HANDLE

No. 177, Male End



Fig. 1530A

No. 175, Bibb Nose



Fig. 1530B

No. 1043, Male and Female Ends



Fig. 1530C

The advantage of this style of cock lies in the self-adjusting key, as the spring will take up any wear between the key and body, insuring at all times a tight joint. The tension of the spring being uniform, the key can be easily turned and will not stick. Below will be found listed the $\frac{1}{8}$ -inch extra small cocks, intended for light service. There is a large number in use on automobiles for carburetor drains, lubricator air vents, etc. These cocks are not intended for steam or high pressure air service.

Size.....	.....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Price, No. 177, Male End.....	each	.65	.75	1.00	1.30
" " 173, " Both Ends.....	"	.75	1.00	1.35	1.90
" " 175, Bibb Nose.....	"	.85	.90	1.30	1.65
" " 1042, Female Both Ends.....	"	.80	1.05	1.40	1.90
" " 1043, Male and Female.....	"	.80	1.05	1.40	1.90
" " 67, Extra Small, Male End.....	"	.65	....	....	....
" " 65, " " " with Soldering Union	each	.75	....	....	....
for $\frac{1}{4}$ -inch Outside Diameter Tubing.....	each	.75	....	....	....

LEVER HANDLE

No. 174, Male Both Ends

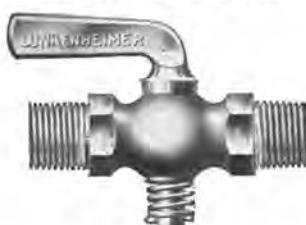


Fig. 1530D

No. 1037, Female Both Ends



Fig. 1530E

Size.....	.....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Price, No. 178, Male End.....	each	.70	.90	1.15	1.55
" " 174, " Both Ends.....	"	.85	1.10	1.50	2.00
" " 176, Bibb Nose.....	"	.90	1.00	1.50	1.90
" " 1037, Female Both Ends.....	"	.90	1.15	1.55	2.10
" " 1038, Male and Female.....	"	.90	1.15	1.55	2.10
" " 66, Extra Small, Male End.....	"	.70	....	....	....
" " 64, " " " with Soldering Union	each	.80	....	....	....
for $\frac{1}{4}$ -inch Outside Diameter Tubing.....	each	.80	....	....	....

LUNKENHEIMER GAUGE COCKS

COMPRESSION GAUGE COCKS

No. 467, PLAIN



Fig. 4842A

Warranted for 125 pounds working pressure.

Size Inches	Price Each	Size Inches	Price Each
1/4	.95	1/2	1.15
5/8	1.05	3/4	1.25

No. 577, WITH STUFFING BOX



Fig. 4842B

For 125 pounds working pressure.

Size Inches	Price Each	Size Inches	Price Each
1/4	1.15	1/2	1.35
5/8	1.25	3/4	1.50

REGRINDING GAUGE COCKS

No. 446, WOOD WHEEL

No. 1176, IRON WHEEL



Fig. 4842C

For 250 pounds working pressure.

Size Inches	Price Each	Size Inches	Price Each
1/4	1.15	1/2	1.30
5/8	1.20	3/4	1.80

No. 992, EXCELSIOR GAUGE COCKS

WITH EMERGENCY VALVE

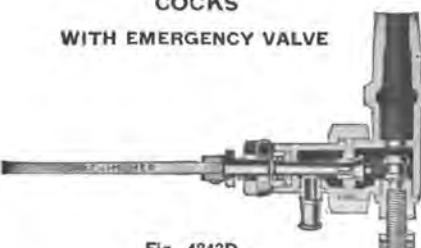


Fig. 4842D

For working pressures up to 300 pounds.

Some forms of gauge cocks are incapable of being repaired or cleaned unless the boiler to which they are attached is out of commission.

To overcome this objection, the Excelsior is provided with an auxiliary valve, which may be closed at any time, and the main valve and trimmings removed for examination or repairs.

Size.....	inches	1/2 or 3/4
Price, Semi-finished.....	each	6.00
" Finished.....	"	7.00

RENEWO GAUGE COCKS



Fig. 4842E

The seat and disc of the Renewo are made of rolled monel, unequalled for this service and the body, hub and locknut of Lunkenstein valve bronze.

All parts can be renewed should they become worn or broken.

Price, Short Shank, Finished Bronze
1/2 or 3/4-inch Connection..... each 5.00

Price, Long Shank, Finished Bronze,
3/4-inch Connection..... each 6.00

LUNKENHEIMER AIR NOZZLES AND FUSIBLE PLUGS

PUSH BUTTON AIR NOZZLES

No. 96, with Hose End



Fig. 30076A

The Lunkenheimer Air Nozzle is a time-saver and safety-first device of the highest grade. It facilitates quick and positive removal of dust, chips, dirt, liquid deposits, etc. and insures operation of complicated machines against accident. Eliminates the unsanitary hand rag, reduces the waste expense, and dispenses with the time-consuming hand bellows.

Adapted for use in a large number of varied manufacturing plants and shops, saw and planing mills, foundries and core rooms, garages, textile mills, electrical plants, printing establishments, etc.

No. 26, with Female Pipe Threaded End



Fig. 30076B

The hole in the nose end of these nozzles is of a size which has been found to be suitable for general purposes, but where a finer spray is desired, nozzles drilled to smaller diameters can be furnished.

Size of Hose End Inches	Price No. 96 Each	Size of Female Pipe Threaded End Inches	Price No. 26 Each
1/2	1.10	1/8	1.20
1/2	1.20	3/8	1.30

The above are furnished also with lever either in hose or female pipe threaded end. When ordering, be sure to specify which is desired and give the size.

FUSIBLE PLUGS

No. 49, Inside Pattern



Fig. 30076C

No. 50, Outside Pattern



Fig. 30076D

No. 49 illustrates the inside pattern. This plug should be screwed into the boiler plate from the water side. The hexagon shoulder, close to the point of thread contact, provides an unusually strong construction and minimizes the strain of the casing when the plug is screwed home. The position of the hexagon makes certain compliance with the regulation that the plug must project into the water space at least 1 inch.

No. 50 illustrates the outside pattern. This plug should be screwed into the boiler plate from the fire side.

Nos. 49 and 50 have correct Brigg's Standard Threads.

Nos. 50L and 50XL designate plugs with oversize and extra oversize threads respectively, to take care of carelessly tapped holes or those which have been retapped.

Lunkenheimer Fusible Plugs comply with the A. S. M. E. Boiler Code in the $\frac{1}{2}$ to $1\frac{1}{2}$ inch sizes inclusive, and with Regulations of the Steamboat Inspection Service of the United States Department of Commerce in all sizes.

Size Inches	No. 49 Inside	No. 50 Outside	PRICE EACH	
			No. 50L Outside	No. 50XL Outside
3/8	1.70	1.80	...	...
1/2	1.90	2.00	...	...
5/8	2.30	2.50	2.60	2.80
1	3.30	3.60	3.80	4.20
1 1/4	5.30	6.60	...	...
1 1/2	8.10	9.80	...	...

LUNKENHEIMER AUTOMATIC INJECTORS

FOR STEAM BOILERS

Exterior No. 756



Fig. 1184A

Sectional No. 756



A highly efficient, reliable and economic water feeder for the types of steam boilers on which it is advisable to use the injector feed system. It is also recommended as an auxiliary to the regular pump feed systems.

Its efficiency is proved by the wide range of steam pressures at which it will operate, the thermal range of the feed water it will successfully handle, and the practical scope of its delivery regulation.

Its reliability as an automatic injector may be judged to best advantage by actual test and observation of its re-starting action (automatic re-establishment of the flow) after temporary interruption of either the steam or water supply.

In addition to the results of efficient operation, its economy is proved by the remarkably low cost of maintenance. The latter economy is due to the extreme wearing qualities of the component materials and their careful fabrication under the Lunkenheimer method. The special bronze alloy of which the tubes or jets are made is peculiarly resistive to the inevitable and severe erosive action of the high velocity flow. Lunkenheimer Valve-Bronze in heavy section, used in the other parts, results in a structure not subject to distortion or rupture.

The Lunkenheimer design of spill eliminates the rapid wear of the combining tube so prevalent in other makes.

The Lunkenheimer method of manufacture guarantees interchangeability of parts and insures ease of repairs when necessary.

Size.....	number	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Pipe Connections.....	inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1
Price, No. 756, Overflow Front, Suction Left, Discharge Back.....	each	15.00	16.00	18.00	20.00	25.00	30.00	40.00
Size.....	number	$4\frac{1}{2}$	5	6	7	8	9	10
Pipe Connections.....	inches	1	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	2	2
Price, No. 756, Overflow Front, Suction Left, Discharge Back.....	each	45.00	55.00	60.00	75.00	90.00	110.00	125.00

LUNKENHEIMER EJECTORS

No. 937



Fig. 1876A

Parts:

- A—Body.
- B—Delivery and suction union tailpiece.
- C—Delivery and suction ring.
- D—Steam connection union tailpiece.
- E—Steam tube.
- F—Steam connection union ring.
- G—Delivery tube.

Sectional View



LIFT OF WATER AT 75° FAHR.

5 to 100 Pounds Steam Pressure

Pressure	pounds	5	10	15	20	25	30	40	50	60	70	80	90	100
Lift.....	feet	3	7	11	15½	21	21	20	19	18	17½	16½	15½	14½

HEIGHT EJECTOR, WHEN PLACED 5 FEET ABOVE SUCTION SUPPLY, WILL FORCE WATER AT 75° FAHR.

20 to 100 Pounds Steam Pressure

Pressure	pounds	20	30	40	50	60	70	80	90	100
Height.....	feet	18	28	36	46	57	66	74	84	92

PRICES AND TABLE OF CAPACITIES

Size Letter	Steam Inches	PIPE CONNECTIONS		Capacity Gallons per Hour Feed Water 75° Lift 15 Feet Steam Pressure 50 Pounds	Price No. 937 Each
		Suction and Delivery Inches	Delivery Inches		
A—Bronze	3½	1½		250	8.00
B " "	½	¾		500	10.00
C " "	¾	1		960	15.00
D " "	1	1¼		1300	20.00
E " "	1¼	1½		2000	25.00
F—Iron	1¼	2		4000	35.00
G " "	1½	2½		8000	56.00
H " "	2	3		11000	78.00

NOTE.—When order gives but one size pipe connection, and does not state whether this connection is for steam, suction or delivery, the size given will be considered as intended for steam connection, and the order accordingly will be filled.

STRONG STEAM TRAPS

BUCKET TYPE



Fig. 585A

The valve and seat, the only wearing parts, are made of Anum-MetI, and are guaranteed to remain tight for one year, otherwise replaced without charge. The design of the trap is such that by removing the cap both the valve and seat are open to inspection. As the actual wearing parts contain but a small amount of metal and require but little machine work, the valve and seat can be renewed at small expense.

Valves, seats and all other parts are interchangeable. All joints are machined. All measurements are made from finished surfaces. Valve is always water-sealed—steam cannot escape. Valve may be tested for tightness while trap is in service. One trap can be fitted for any pressure, from 0 to 250 pounds.

OPERATION.—As soon as sufficient water enters the trap, the bucket, being buoyant, floats and closes the valve and the trap is in operation. As the condensation increases, the body of the trap fills and the water enters the bucket, causing it to sink. The bucket being attached to the discharge valve, opens it and the trap begins to discharge, continuing to do so until the condensation is blown out of the body to the lowest edge of the bucket, when the water in the bucket is forced out until the bucket again becomes buoyant, rises and closes the valve.

Nos. 0 TO 5 SERIES

Trap No.	Size Pipe Connections Inches	Capacity Water per Hour Pounds	Capacity Radiation Square Feet	Capacity 1-inch Pipe Linear Feet	Shipping Weight Pounds	Price Each
0	1/2	1500	4500	13500	75	27.50
1	3/4	2000	6000	18000	75	30.50
2	1	4500	13000	39000	115	40.00
3	1 1/4	6000	18000	54000	150	55.00
4	1 1/2	8000	24000	72000	210	75.00
5	2	15000	45000	135000	330	105.00

No. 30 SERIES

30	1/2	1000	3000	9000	35	22.50
31	3/4	1700	5100	15300	50	28.00
32	1	2100	6300	18900	75	34.00
33	1 1/4	4500	13000	39000	115	47.00
34	1 1/2	6000	18000	54000	150	60.00
35	2	8000	24000	72000	210	85.00
36	2 1/2	15000	45000	135000	330	120.00

Unless otherwise specified, standard pressure traps will be shipped.

They can be furnished at the same prices for different pressures, as follows:

Gravity Trap.....	10 lbs. or less
Low Pressure Traps.....	10 lbs. to 30 lbs.
Standard Pressure Traps.....	30 lbs. to 125 lbs.
High Pressure Traps.....	125 lbs. and upward

NASON STEAM TRAPS



Fig. 9593A

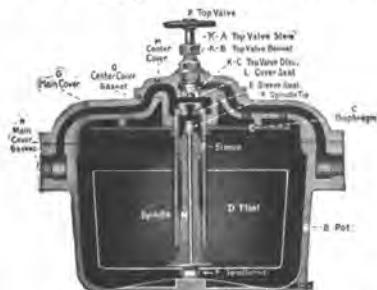


Fig. 9593B



Fig. 9593C

Number	1	2	3	4	5
Size of Pipe Connections..... inches	1/2	3/4	1	1 1/4	1 1/2
Discharge per Minute..... pounds	4 1/2	6 1/2	10	15 1/2	23
Capacity, Lineal Feet of 1-inch Pipe.....	1500	3450	5250	7650	12000
" Square Feet of Direct Radiation	500	1150	1750	2550	4000
Diameter of Flange..... inches	10 3/4	14 1/4	15 3/4	19	24 1/4
Height Over Valve..... "	11	14	16 1/4	18 1/2	23 1/2
" Cover..... "	8	10	12	14	15 1/2
Weight, Classes B and C..... pounds	40	80	113	176	336
" Sidelug..... "	47	92	125	212	343
Price, Classes B and C..... each	26.50	56.50	72.50	108.50	211.50
" Sidelug..... "	32.00	62.00	78.00	120.00	220.00



Class B is designed for low pressure service, not exceeding 20 pounds pressure. Class C is designed for medium service for pressures between 20 and 70 pounds.

The Sidelug Trap embodies the Nason principles, is heavier in construction, and in addition has extension lugs over the inlet and outlet ports to obviate the blowing out of gasket at these points. For pressures between 40 and 150 pounds.

REPAIRS

In ordering repairs be particular to note what style of trap they are for.

Number of Trap	1	2	3	4	5
Price, K—Top Valve Complete..... each	2.00	2.80	3.20	4.00	4.20
" KA—" " Stem only..... "	1.00	1.20	1.40	1.40	2.00
" KB—" " Bonnet only..... "	.70	.80	.90	.90	1.30
" KC—" " Disc (No. 5 only Removable)..... "	...	...	...	...	2.00
" O—Center Cover Gasket (4 and 5 only)..... "	...	...	...	.50	.80
" M—" " (4 and 5 on'y)..... "	...	...	...	7.00	8.00
" G—Main Cover..... "	4.80	7.20	10.00	16.40	31.20
" N—" " Gasket..... "	.50	.80	1.20	2.40	3.40
" L—Cover Seat..... "	.80	.80	1.20	1.40	1.60
" E—Sleeve "..... "	.60	.80	1.00	1.20	1.40
" C—Diaphragm..... "	.60	1.00	1.20	2.40	3.20
" F—Sleeve..... "	2.40	3.20	4.00	5.40	9.00
" H—Spindle..... "	2.00	2.80	3.40	5.00	7.00
" B—Pot..... "	6.00	9.00	14.00	21.00	37.60
" D—Float..... "	1.60	2.00	2.00	4.00	5.00
" P—Spindle Nut..... "	.60	.60	.60	.80	.80
" R—" " Tip (No. 5 only Detachable)..... "	...	...	...	...	1.60

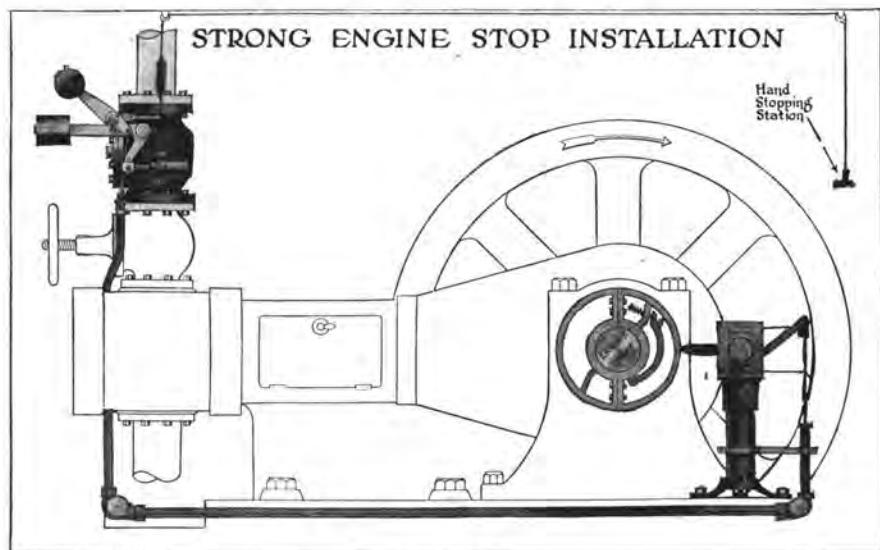
STRONG ENGINE STOPS AND RADIATOR TRAPS**AUTOMATIC OVERSPEED ENGINE STOPS**

Fig. 37092A

Prevents fly-wheel explosions. Furnished with either independent automatic or combined throttle and automatic quick-closing valves mechanically or electrically operated.

Prices and further information upon application.

THE STRONG RADIATOR OR LOW PRESSURE SERVICE TRAP

FOR PRESSURES NOT OVER 30 POUNDS



Fig. 37092B

A small, compact, simple device for automatically removing the air and condensation from radiators, heating and drying coils, etc., operated under a low pressure or vacuum. The inlet, which is complete with union, and the outlet connection are placed at right angles so that in the installation of the trap the outlet flow from the radiator or coil, as the case may be, is connected to the side of the trap. The outlet has a female thread and may be piped downward through the floor without the use of other fittings. The trap weighs less than three pounds and discharges over 250 pounds of condensation per hour.

EXHAUST PIPE HEADS



Fig. 4961A



Fig. 4961B

Size Inches	Price Each	BURST EXHAUST HEAD					STANDARD EXHAUST HEAD				
		Height Inches	Diam- eter Inches	Size of Drip Inches	Net Weight Pounds	Ship- ping Weight Pounds	Height Inches	Diam- eter Inches	Size of Drip Inches	Net Weight Pounds	Ship- ping Weight Pounds
1 or $1\frac{1}{2}$	12.00	16	10	1	18	30	21	16	$1\frac{1}{4}$	27	33
2 " $2\frac{1}{2}$	15.00	18	12	1	18	30	27	21	$1\frac{1}{4}$	27	33
3 " $3\frac{1}{2}$	18.00	20	14	1	35	50	31	25	$1\frac{1}{4}$	41	56
4 " $4\frac{1}{2}$	24.00	27	16	1	49	65	37	30	$1\frac{1}{4}$	62	77
5	30.00	29	18	$1\frac{1}{4}$	72	89	40	32	$1\frac{1}{4}$	70	90
6	36.00	31	20	$1\frac{1}{4}$	90	125	43	35	$1\frac{1}{4}$	102	125
7	45.00	36	22	$1\frac{1}{4}$	95	130	47	39	$1\frac{1}{4}$	127	157
8	54.00	39	24	$1\frac{1}{2}$	125	152	50	42	$1\frac{1}{4}$	190	226
9	63.00	43	26	2	160	210	53	45	$1\frac{1}{4}$	225	265
10	75.00	46	30	2	182	222	57	49	$1\frac{1}{4}$	245	290
11	80.00	46	30	2	182	222	..	..	..	..	..
12	90.00	48	32	2	270	435	64	55	$1\frac{1}{4}$	345	375
13	105.00	51	34	2	305	470	67	58	2	375	405
14	120.00	56	36	2	385	550	71	62	2	400	490
15	145.00	59	39	2	500	659	74	65	2	460	545
16	160.00	62	42	2	559	799	77	69	2	525	620
17	170.00	69	45	4	610	840	..	..	..	..	..
18	190.00	76	48	4	700	950	85	76	3	600	720
19	210.00	79	50	4	785	1035	..	..	..	..	..
20	225.00	82	52	4	900	1150	95	82	3	800	975

The exhaust heads shown above are devised for attaching to exhaust pipes, preventing the oil and wet steam from escaping upon roofs of buildings, also saving the water employed in the steam system, as the same water (after the cylinder oil has been removed) is used over and over again, thus obviating the use of fresh water which contains a large amount of lime and sediment, which forms a scale in the boiler and makes it harder for the heat to penetrate.

The base and drips of these exhaust heads are of malleable iron, being much stronger and more durable than cast iron. The seams being water-tight prevent over-loading and blowing up. They will not rust, being painted with anti-rust paint.

The operation of these exhaust heads is such that the constant steam coming up through the head does not come in contact with the steam that has been condensed, thus making it impossible for anything but dry steam to escape through the outlet.

The standard exhaust head is designed for those who prefer the utilization of centrifugal force for separating the water and oil from the exhaust steam, and also for those who desire a cone shaped exhaust head.

Heads larger than 5 inches are fitted with extra heavy companion flanges.

In ordering, state inside diameter of exhaust pipe, horse power of engine, whether or not same is overloaded, and whether the exhaust is severe.

STEAM AND OIL SEPARATORS

VICTOR STEAM SEPARATORS

HORIZONTAL



Fig. 4462A

VERTICAL



Fig. 4462B

HORIZONTAL AND VERTICAL STEAM SEPARATORS

Effectively trap and remove suspended and entrained water from live steam, separate and remove oil and grease from exhaust steam. Remove grit, sand, silt, scale, etc., from compressed air and gases, prevent blistering and weakening boiler plates caused by the accumulation of oil in boilers; prevent foaming of boilers, arrest slugs of water and prevent their passage into the engine cylinder, thus saving expensive accidents.

Size.....	.....inches	2	2½	3	3½	4	4½
Face to Face, Horizontal	inches	9	12½	12½	14¼	14¼	15
" " " Vertical.....	"	15½	18½	18½	22	22	25½
Diameter of Flanges.....	"	6	7½	7½	9	9	10
Price	each	40.00	50.00	50.00	70.00	70.00	80.00

Size.....	.....inches	5	6	7	8	9	10
Face to Face, Horizontal	inches	15	19	21	21	24¾	24¾
" " " Vertical.....	"	25½	27½	28½	30¼	44	44
Diameter of Flanges.....	"	10	11	13½	13½	16	16
Price	each	80.00	110.00	160.00	160.00	220.00	220.00



TRIUMPH OIL SEPARATORS

Size.....	.....inches	2	3	3½	4	4½	5
Face to Face	inches	9½	10½	13	13	13½	13½
Center of Inlet or Outlet to Bottom of Drain, in.		19½	21	31	31	34	34
Price	each	90.00	100.00	125.00	125.00	160.00	160.00

Size .....	.....inches	6	7	8	9	10	.....
Face to Face	inches	16½	19	19	23	23	.....
Center of Inlet or Outlet to Bottom of Drain, in.		36	44	44	48	48	.....
Price	each	180.00	300.00	300.00	400.00	400.00	.....

Fig. 4462C

Larger sizes on application.

WORTHINGTON HORIZONTAL DUPLEX PISTON PUMPS

Size 6x6x6



Fig. 29903A

Suitable for boiler feeding, fire or general service.

SIZE, INCHES			GALLONS PER STROKE EACH PISTON	NORMAL OPERATING CAPACITY PER MINUTE			PIPE CONNECTION INCHES				FLOOR SPACE INCHES
Diameter of Steam Cylinder	Diameter of Water Cylinder	Stroke		No. of Single Strokes Each Piston	Feet, Piston Speed	Gallons both Cylinders	H. P. Boiler at 35 Lbs. Pumps W. H. Feed at Slow Speed	Steam	Exhaust	Suction	
3	2	3	.041	110	28	9	80	3 $\frac{3}{8}$	1 $\frac{1}{2}$	1	24x 9
3 $\frac{1}{2}$	2 $\frac{1}{4}$	4	.069	100	33	14	120	3 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	28x 9
4 $\frac{1}{2}$	2 $\frac{3}{4}$	4	.103	100	33	21	180	1 $\frac{1}{2}$	3 $\frac{3}{4}$	2	33x13
5 $\frac{1}{4}$	3 $\frac{1}{2}$	5	.208	90	38	37	325	3 $\frac{3}{4}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	38x16
6	4	6	.326	80	40	52	460	1	1 $\frac{1}{4}$	3	44x17
7 $\frac{1}{2}$	5	6	.51	80	40	82	725	1 $\frac{1}{2}$	2	4	45x22
7 $\frac{1}{2}$	4 $\frac{1}{2}$	10	.69	70	58	97	845	1 $\frac{1}{2}$	2	4	59x22
9	5 $\frac{1}{4}$	10	.94	70	58	131	1170	2	2 $\frac{1}{2}$	4	61x22
10	6	10	1.22	70	58	171	1515	2	2 $\frac{1}{2}$	5	62x36
10	7	10	1.62	70	58	226	1600	2	2 $\frac{1}{2}$	6	60x26
12	7	12	1.94	65	65	252	2125	2	2 $\frac{1}{2}$	6	76x31
14	7	12	1.94	65	65	252	2125	2 $\frac{1}{2}$	3	6	78x33
12	8 $\frac{1}{2}$	12	2.87	65	65	375	3140	2	2 $\frac{1}{2}$	6	76x31
14	8 $\frac{1}{2}$	12	2.87	65	65	375	3140	2 $\frac{1}{2}$	3	6	78x33
16	8 $\frac{1}{2}$	12	2.87	65	65	375	3140	2 $\frac{1}{2}$	3	6	79x40
14	10 $\frac{1}{4}$	12	4.09	65	65	530	4550	2 $\frac{1}{2}$	3	8	82x37
16	10 $\frac{1}{4}$	12	4.09	65	65	530	4550	2 $\frac{1}{2}$	3	8	82x40

*These normal operating capacities are for continuous duty. For emergency service increase about 30 per cent. Boiler feed service decrease 35 per cent. For very light heads decrease 10 per cent.

The first three sizes above are always fitted with bronze rods and pistons; other sizes are so fitted on special order at an extra charge.

Sizes 10x7x10 and larger have a different type water end than shown above.

STRONG PUMP GOVERNORS AND PRESSURE REGULATORS

TYPE S

EXTERIOR



Fig. 8949A

OPERATION

The Strong Type S Valve is operated by an auxiliary or pilot valve controlled by the reduced or discharge pressure. The function of the pilot is to admit the initial pressure to the upper surface of main valve piston.

USED AS A REDUCING VALVE

As a pressure of 25 pounds is required to operate the main valve, it is necessary that there be at least a difference of 25 pounds between the initial and regulated pressure to insure perfect operation. In other words, if a reduced pressure is wanted of 75 pounds, the initial pressure at the valve should not be less than 100 pounds. If 25 pounds is wanted—then 50 pounds initial pressure at the valve, etc.

As the high pressure is used to operate the main valve, it is positive in operation, and being controlled by an independent pilot valve, the regulator will hold an accurate regulated pressure, regardless of fluctuations in the initial pressure.

Steam coming to the valve through the inlet, passes to the piston chamber through the port leading from the inlet side of the valve to the pilot. The pressure builds up in the piston chamber, forcing the piston downward and opening the main valve. The initial pressure now passes through the valve into the low pressure side and builds up the low pressure until it reaches the point for which pilot is set. The low pressure is transmitted to the pilot through the line connecting the pilot with the low pressure line, and acting upon the pilot diaphragm forces it against the spring and closes the passage to the piston chamber. The low pressure acting upon the lower surface of the piston, the high pressure on the main valve disc and the disc spring force the main valve closed. As soon as the low pressure drops, the pilot spring lifts the pilot valve from its seat and the high pressure again forces main valve open.

SECTIONAL

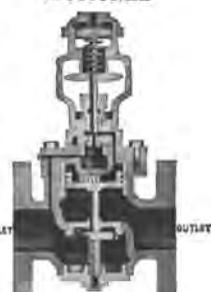


Fig. 8949B

USED AS A PUMP GOVERNOR

The principle of operation is the same as described under "used as a reducing valve."

The pilot is operated by the water pressure on the discharge line from the pump, and as the water pressure is independent of the steam pressure, the governor will operate under any steam pressure above 25 pounds, whatever the discharge pressure may be.

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Price ....each	25.00	27.00	30.00	35.00	37.00	45.00	60.00
Size.....inches	3	4	5	6		8	....
Price ....each	75.00	105.00	140.00	185.00	.....	260.00	....

Sizes $\frac{1}{2}$ to 1-inch, inclusive, are screwed; $1\frac{1}{4}$ and larger, flanged. Companion flanges are furnished for $1\frac{1}{4}$, $1\frac{1}{2}$, 2 and $2\frac{1}{2}$ -inch sizes only. Larger sizes will be furnished without flanges, unless specially ordered. All valves are extra heavy.

FORD REGULATING VALVES

PUMP REGULATING VALVES



Fig. 41818A

For elevator, house, fire and boiler feed pumps, air compressors. Contains no diaphragms to burst under the high water pressures encountered in modern practice, being built on piston actuated construction (leather-packed for cold water, and solid metal for hot water, or oil); the steam valve is single seated balanced construction, insuring a true balanced valve and ease of repair in case reseating is necessary. The spring is so situated that it is kept at all times in a comparatively cool place.

On open tank service used in connection with a Ford balanced tank valve, this pump regulating valve is unexcelled in all-around usefulness and reliability in controlling the action of the pump by the slightest variation of water level in roof tank.

On boiler feed pump service it is a great labor-saving device. By simple closing the feed valves to boilers, the pump is automatically stopped by the accumulation of pressure in the feed line acting upon the Ford valve, and the pump needs no attention.

Center to Inlet Face to
and Outlet Face

Size Inches	Angle Inches	Globe Inches	PRICE, EACH	
			Screwed	Flanged
1	...	...	40.00	....
1½	...	...	50.00	....
2	4½	8½	60.00	34.00
2½	5¼	10	70.00	40.00
3	5½	11¼	80.00	45.00
4	7	14	100.00	55.00

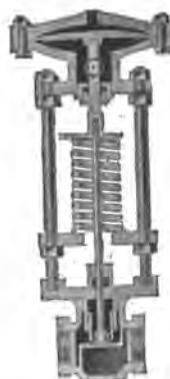
VACUUM PUMP REGULATING
VALVES

Fig. 41818B

This type of regulator is designed for use in the control of vacuum pumps. It is practically identical in construction to the Ford standard type, with the exception of a diaphragm, which is substituted for a piston, rendering the device highly sensitive to slight variation.

By test, this valve has maintained a 5-inch vacuum with 150 pounds pressure on steam end—a degree of regulation that will no doubt be appreciated by engineers.

The regular stock body on all sizes of the Ford Regulating Valve is made extra heavy, to withstand steam pressures as high as 250 pounds. Angle pattern screwed connection furnished unless otherwise ordered.

In selecting the Ford valve, a simple positive device is obtained, free from any unnecessary parts and yet possessing all features to meet present day conditions.

Price, $\frac{3}{4}$ and 1-inch each 48.00
" 1½-inch " 58.00
" 2 " " 70.00

Prices, on sizes above 2 inches upon application.

FORD FLOAT VALVE AND PRESSURE REDUCING VALVES

BALANCED TANK FLOAT VALVES WITH FLOAT



Fig. 41820A

In the equipment of tanks having a supply of 1 inch or larger, a reliable valve that will operate on high pressure with a small float is necessary to insure against overflowing. The Ford Balanced Tank Valve fills the requirement and can be successfully applied without danger of water hammer on pressure as high as 75 pounds. The float closes the valve simply against the friction of the moving parts, the pressure neutralizing itself upon the single-seat balanced construction. Two wearing parts only—leather washer and rubber disc.

These valves are made of brass, sizes 1-inch to $1\frac{1}{2}$ -inch inclusive. The 2-inch to 6-inch sizes are of cast iron, screwed pattern with brass trimmings. All sizes angle body screwed, unless otherwise ordered. The lever is made in two pieces, with corrugated discs which engage each other and are held firmly in position by a heavy set screw. This arrangement enables the adjustment for angularity and position of float without bending the float rod.

Size Inches	Price Each	Size Inches	Price Each
1	20.00	3	70.00
$1\frac{1}{4}$	25.00	4	100.00
$1\frac{1}{2}$	30.00	5	160.00
2	40.00	6	220.00
$2\frac{1}{2}$	50.00	...	.....

Price includes floats.

WATER PRESSURE REDUCING VALVES

TYPE C W

PATS. PENDING

FOR WATER, GAS, AIR

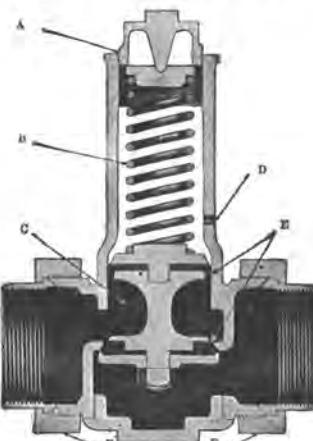


Fig. 41820B

This valve will hold reduced pressure regardless of variations on street side.

Has one piece body and cap.

- (A) Pressure adjusting plug. No protruding screws to be broken off.
- (B) Copper plated steel spring.
- (C) Single seat balance construction. Insures positive seating. No water hammer.
- (D) Air vent.
- (E) Two wearing parts only—leather washer and composition disc.
- (F) All composition—union ends.

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4}$	10.00	2	29.00
1	12.00	$2\frac{1}{2}$	50.00
$1\frac{1}{4}$	15.00	3	75.00
$1\frac{1}{2}$	18.00	...	.....

WATSON REDUCING AND RELIEF VALVES

BRASS REDUCING VALVES FOR STEAM ONLY

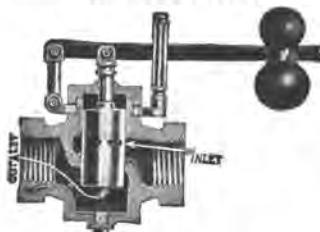


Fig. 15591A

Adapted for places carrying a boiler pressure of 200 pounds or less, and will reduce from 1 to 30 pounds on low pressure side. The only inside and movable part is the piston, which can be taken out to clean without breaking any pipe joint. Insures a steady pressure at all times.

Size Inches	Price, Each Brass, Screwed	Size Inches	Price, Each I. B. Brass Lined, Flgd.
$\frac{1}{2}$	14.00	2	38.00
$\frac{3}{4}$	14.00	$2\frac{1}{2}$	55.00
1	17.00	3	70.00
$1\frac{1}{4}$	22.00	4	90.00
$1\frac{1}{2}$	28.00	...	....
2	38.00	...	....

WATER RELIEF VALVES

These valves are to be used in connection with the reducing valve when used for reducing water pressure, where it acts as a safety valve to prevent an accumulation of pressure on the light side, so that the pressure on the pipes can never rise above what it is set at by the reducing valve.



Fig. 15591B

Size.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	
Price.....	each	6.00	8.00	10.00	
Size.....	inches	$1\frac{1}{4}$	$1\frac{1}{2}$	2	
Price.....	each	12.00	16.00	22.00	
Size.....	inches	$2\frac{1}{2}$	3	...	
Price.....	each	30.00	40.00	...	

LOW PRESSURE REDUCING VALVES



Fig. 15591C

Suitable for reducing steam pressures from 200 pounds or less to any low pressure from 1 to 25 pounds.

This valve is made with balanced valves and a rubber diaphragm hanging below the run of pipe controlled by a lever and weight.

It is very sensitive in action and quick to respond to the slightest change in the demands made on the low pressure side.

There is no friction anywhere, so that the valve cannot stick or become sluggish from scale or grease.

This valve should only be used for pressure wanted from 1 to 25 pounds on the outlet.

BRASS, SCREWED		IRON BODY, FLANGED	
Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4}$	17.00	2	38.00
1	20.00	$2\frac{1}{2}$	55.00
$1\frac{1}{4}$	25.00	3	70.00
$1\frac{1}{2}$	30.00	4	90.00
...	....	5	110.00
...	....	6	150.00

In ordering, always state the high pressure and the pressure wanted on reduced side.

BACK PRESSURE VALVES

DAVIS NOISELESS BACK PRESSURE VALVES
FOR EXHAUST STEAM PRESSURE

Fig. 13928A

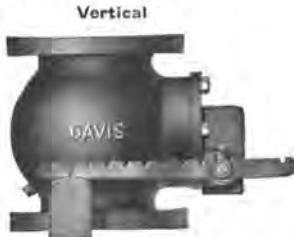


Fig. 13928B

Noiseless, semi-balanced, with patented non-stick seats and disc, the Davis Back Pressure Valve automatically maintains the desired back pressure for heating, drying, cooking, processing or any purpose where exhaust steam may be used at a saving over live steam. It may be used either horizontally or vertically.

Standard valves are recommended for pressures up to ten pounds. Under higher pressure, the leakage is quite noticeable and if objectionable the valve should have bevel-seated discs, which can be supplied on special order.

Size In.	FACE TO FACE IN.		PRICE EACH		Size In.	FACE TO FACE IN.		PRICE EACH	
	Screwed	Flanged	Screwed	Flanged		Screwed	Flanged	Screwed	Flanged
2	7 1/2	8 1/4	25.00	30.00	12	22	.....	220.00	
2 1/2	7 1/2	8 1/4	30.00	35.00	14	24 1/4	.....	345.00	
3	8 5/8	8 1/2	35.00	40.00	15	24	.....	400.00	
3 1/2	9 1/4	9	40.00	45.00	16	27 1/2	.....	465.00	
4	10 1/4	10	45.00	50.00	18	29 1/2	.....	600.00	
4 1/2	11	11	50.00	55.00	20	30 1/2	.....	750.00	
5	11 1/2	11 1/2	60.00	65.00	22	38	.....	900.00	
6	13 1/2	13	85.00	90.00	24	38	.....	1050.00	
7	....	14 1/2	....	110.00	26	48	....	1200.00	
8	....	16 1/2	....	140.00	28	48	....	1400.00	
10	....	19	....	180.00	30	47	....	1600.00	



Fig. 13928C

JENKINS EXCELSIOR BACK PRESSURE VALVES

This valve is extremely simple and entirely free from complicated working parts. It is straightway and has an area through its seat equal to that of the pipe. Its construction is such that when not needed, the working parts can be easily and quickly thrown into the cover, leaving a full size unobstructed passage through the valve. The disc can be removed and replaced when necessary. Can be used in a horizontal or vertical position or at any desired angle.

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Screwed	Flanged		Screwed	Flanged		Screwed	Flanged
2 1/2	15.00	16.00	6	43.00	44.50	14	.....	255.00
3	18.00	19.00	7	57.00	57.00	16	.....	310.00
3 1/2	21.00	23.00	8	.....	71.00	18	.....	380.00
4	24.00	25.00	9	.....	88.00	20	.....	450.00
4 1/2	30.00	31.00	10	.....	102.00	.....	.....	.....
5	33.00	34.50	12	.....	143.00	.....	.....	.....

LUBRICATORS

LUNKENHEIMER LUBRICATORS

No. 486 JUNIOR
SINGLE
CONNECTION

Fig. 35208A

No. 482 SENIOR
DOUBLE
CONNECTION

Fig. 35208B

JUNIOR SINGLE CONNECTION

For small engines, portables, and steam pumps.

No. 486, with iron condensing chamber, pipes and handwheel.

No. 270, with bronze condensing chamber, pipes and wood handwheel.

Cap. Pints	Thread Inches	Size	PRICE, EACH		
			No. 486 Part Finished	No. 486 Finished	No. 270 N.P.
1/4	3/8	7.00	8.50	10.00	
1/3	3/8	8.00	10.00	11.50	
1/2	1/2	10.00	12.00	13.50	

SENIOR DOUBLE CONNECTION

Has no condensing chamber or bulb, owing to its liability to freeze and consequent bursting. Filling plug is directly on top of oil reservoir or chamber.

Cap. Pints	PRICE, EACH			CONDENSER CONNECTIONS TUBING AND ANGLE VALVE
	Finished	N.P.	Fin.	
1/4	12.00	13.50	6.30	7.00
1/3	15.00	17.00	6.90	7.60
1/2	17.00	19.00	8.00	8.80
2/3	20.00	22.50	9.10	10.00
1	22.00	25.00	10.30	11.30
1 1/2	25.00	28.50	11.50	12.60
2	28.00	32.00	12.70	13.90
4	38.00	43.00	14.50	16.00
8	60.00	65.00	16.70	18.50

The first 3 sizes in above table have $\frac{3}{8}$ -inch thread; the balance $\frac{1}{2}$ -inch thread.

ZERO LUBRICATORS

DOUBLE
CONNECTION

Fig. 35208C

SINGLE
CONNECTION

Fig. 35208D

DOUBLE CONNECTION

For use in outdoor service, particularly in places subject to low temperatures, such as on traction engines, portable engines and other steam engines and steam pumps exposed to the cold.

Installed with both connections between the boiler and the throttle.

Finished with rough body and polished trimmings in brass.

Capacity Pints	*Pipe Thread Inches	Capacity Pints	*Pipe Thread Inches
		1/4	1/2
1/4	3/8	1	1/2
1/3	3/8	2	1/2
1/2	3/8	..	..

*On support arm.

SINGLE CONNECTION

For the same service as the double connection and where the double connection cannot be installed.

Installed on either side of the throttle or into the steam chest direct by using an elbow and short vertical piece of pipe.

Finished with rough body and polished trimmings in brass.

Capacity Pints	*Pipe Thread Inches	Capacity Pints	*Pipe Thread Inches
		1/4	1/2
1/4	1/2	1	1/2
1/3	1/2	2	1/2
1/2	1/2	..	..

*On support arm.

Prices upon application.

LUNKENHEIMER BRONZE LUBRICATORS

PLAIN LUBRICATORS

No. 498



Fig. 8963A

BANNER LUBRICATORS

No. 489



Fig. 8963B

No. 498 is a substantial plain gravity lubricator (sometimes designated as a tallow cup) for valve chests and cylinders of steam engines and pumps.

The wood wheel on filling plug is standard for stock but an iron wheel is substituted without extra charge when iron wheels are specified.

No. 307 must be specified when this lubricator is desired equipped with internal displacement tube and reservoir drain cock.

The Banner with its compact, substantial sight-feed and needle valve feed regulation is a most efficient lubricator for blowers and the air cylinders of compressors.

The stop valve controls the main inlet and discharge channel and permits refilling of the oil reservoir under service.

Installing and operating instructions are furnished with each lubricator.

Finished bronze lubricators are furnished unless otherwise specified.

No.	Capacity Ounces	Size Thread Inches	PRICE, EACH	
			No. 498	*307
00	3/4	3/8	2.00	....
0	1	3/8	2.20	....
1	1 1/2	3/8	2.40	....
2	2 1/2	1/2	2.60	....
3	3 1/2	1/2	2.90	3.90
4	4 1/2	1/2	3.25	4.25
5	6	1/2	3.75	4.75
6	10	3/4	4.75	....
7	18	3/4	7.00	....
8	24	3/4	10.00	....

*With cock and tube.

No.	Diam. In.	Cap. Oz.	Size Thread In.	PRICE, EACH			Glasses per Doz.	Price Sight- feed
				Bronze	N. P.	Glasses		
0	1 5/16	1 1/2	3/8	4.40	5.10	1.25		
1	2 1/16	2 1/2	3/8	4.60	5.60	1.25		
2	2 1/4	3 3/4	1/2	5.00	6.00	1.25		
3	2 1/2	4 1/2	1/2	6.00	7.25	1.25		
4	2 5/16	6	1/2	8.00	9.50	1.25		
5	3 1/4	10	1/2	10.00	12.00	1.25		
6	3 5/8	18	3/4	12.00	14.00	1.25		

OIL PUMPS

No. 495 ALPHA GLASS BODY
HAND OIL PUMPS



Fig. 19784A

No. 853 UNIVERSAL GLASS BODY
HAND OIL PUMPS

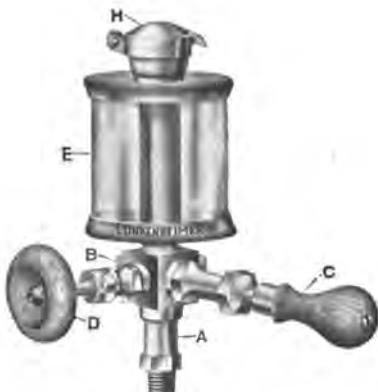


Fig. 19784C

The funnel shaped top facilitates filling. The lever design permits easy operation and the plunger construction insures positive discharge.

No.	Capacity Pints	Diam. Glass Inches	I. P. Thread Inches	PRICE, EACH	
				Fin.	N. P.
3	1/8	2 1/4	3/8	7.50	8.25
5	1/2	3	3/8	8.50	9.50
6	1	3 1/2	1/2	10.00	11.00
8	2	4 1/4	1/2	15.00	16.50

HORIZONTAL SHANK HAND CYLINDER OIL PUMPS



Fig. 19784B

Being made entirely of cast brass, these pumps are strong and substantial. Provided with valve in shank.

No.	Capacity Pints	I. P. Thread Inches	Price Brass Each
500	1/4	3/8	3.50
501	1/2	3/8	5.00
502	1	3/8	7.50

Universal Oil Pumps are equipped with reversible shank, and can be attached vertically or horizontally.

No.	Capacity Pints	Diam. Glass Inches	I. P. Thread Inches	PRICE, EACH	N. P.
3A	1/8	2 1/4	3/8	7.50	8.25
5A	1/2	3	3/8	8.50	9.50
6A	1	3 1/2	1/2	10.00	11.00
8A	2	4 1/4	1/2	15.00	16.50

VERTICAL SHANK HAND CYLINDER OIL PUMPS



Fig. 19784D

Provided with valve in shank, which does away with the necessity of a globe valve.

No.	Capacity Pints	I. P. Thread Inches	Price Brass Each
503	1/4	3/8	3.50
504	1/2	3/8	5.00
505	1	3/8	7.50

**LUNKENHEIMER
“MARVEL” MECHANICAL OIL PUMPS**

No. 912
SINGLE FEED



Fig. 1032A

No. 949
DOUBLE FEED



Fig. 1032B

This method of lubrication is reliable and when properly connected, the oiling is positive.

SINGLE FEED

Referring to the illustration, it will be seen that the driving mechanism is of the ratchet type, and is operated by the pawls that work co-operatively by the motion of the rod, which can be attached to the eccentric rod, or some moving part of the engine by couplings. The motion thus obtained is transmitted to the piston by the crank pin and yoke mechanism. The ratchet wheel is provided with a handle for operating the pump by hand in case it is desirable to force an extra quantity of oil to the engine. By moving the connection up or down the rod, the speed of the pump can be increased or diminished, as desired.

Style		Finished Bronze	Nickel-plated
Price, No. 913, without Oil Cup	each	16.00	18.00
" " 912, with 1-pint Oil Cup	"	19.00	21.00
" " 912, " 1-quart Oil Cup	"	24.00	26.50
" " 912, " ½-gallon Oil Cup	"	31.00	35.00

DOUBLE FEED

Adapted for large tandem or cross compound engines, or any place where a first-class, reliable pump with two independent feeds is required. The construction is similar to the single feed pump.

Style		Finished Bronze	Nickel-plated
Price, No. 949, with 1-quart Oil Cup	each	30.00	33.00
" " 949, " ½-gallon Oil Cup	"	42.00	46.00

LUNKENHEIMER BRONZE OIL AND PRIMING CUPS

Hinged Lid



Fig. 25397A

No. 539
Large Base

Fig. 25397B

OIL CUPS

No. 540
Small Base

Fig. 25397C

No. 541
Large Base

Fig. 25397D

Plain

No. 542
L. H. Cock

Fig. 25397E

With the exception of the oil cups with tee or lever handle cock, the above can be had with the wick tube, but unless otherwise specified wick tubes will not be furnished.

No.	Cap. Oz.	I. P. Thread In.	Nos. 538 or 539	PRICE, EACH			For Wick Tube
				No. 540	No. 541	No. 542	
00	.1	1/8	...	.25	.30	.85	.10
0	.2	1/8	...	.30	.35	.90	.10
1	.3	1/8	.70	.35	.40	1.00	.10
2	.5	1/4	.85	.40	.50	1.10	.10
3	.8	1/4	1.20	.60	.75	1.60	.15
4	1.25	3/8	1.60	.90	1.00	2.20	.15
5	1.75	3/8	*2.10	1.25	...	2.75	.15
6	2.5	3/8	*2.50	1.60	...	3.00	.15
7	3.5	1/2	*2.70	1.75	...	3.25	.15
8	4.5	1/2	...	2.25	...	...	.20
9	6.5	1/2	...	2.75	...	...	.20

*No. 539 procurable on special order.

PRIMING CUPS

No. 821
Tee Handle

Fig. 25397F

No. 820
Lever Handle

Fig. 25397G

No. 368
Forked Handle

Fig. 25397H

No. 702
Lever Handle
Angle Type

Fig. 25397J

No.	I. P. Thread In.	No. 821 Tee Handle	No. 820 Lever Handle	PRICE, EACH		No. 368 Forked Handle	No. 702 Angle Type
				No. 820 Lever Handle	No. 368 Forked Handle		
00	1/8	.70	.75	.95	.85		
0	1/8	.80	.85	1.15	1.00		
1	1/8	.90	.95	1.30	1.15		
2	1/4	1.00	1.10	1.50	1.35		
3	1/4	1.30	1.40	1.75	1.60		
4	3/8	1.50	1.65	2.00	1.90		

LUNKENHEIMER OIL CUPS

No. 515 PIONEER OIL CUPS

Especially adapted for traction engines, steam rollers and other machinery of like character, where it is necessary to use a durable and substantial oiler. Needle valve feed control. Glass body.



Fig. 35358A

No.	Cap. Oz.	Size Thread Inches	Outside Diam. Inches	PRICE, EACH	
				Fin. Bronze	Nickel- plated
000	1/4	1/8	1 3/16	.70	.80
00	1/2	1/8	1 3/8	.75	.85
0	5/8	1/8	1 1/2	.80	.95
1	1	1/4	1 3/4	1.00	1.20
1 1/2	1 1/2	1/4	2	1.25	1.50
2	2 1/2	3/8	2 1/4	1.50	1.75
3	4	3/8	2 1/2	1.90	2.20
4	5	3/8	2 3/4	2.40	2.75
5	10	1/2	3 5/16	3.10	3.50
6	18	1/2	3 9/16	4.00	4.50
8	34	3/4	4 9/16	8.50	9.50

No. 517 ROYAL OIL CUPS

The Royal Sight-feed Glass Body Oil Cup is unexcelled for engine and dynamo use. Needle valve feed control. Glass body.



Fig. 35358B

No.	Cap. Oz.	Size Thread Inches	Outside Diam. Inches	PRICE, EACH	
				Fin. Bronze	Nickel- plated
000	1/4	1/8	1 3/16	.95	1.05
00	1/2	1/8	1 3/8	1.10	1.20
0	5/8	1/8	1 1/2	1.25	1.40
1	1	1/4	1 3/4	1.50	1.70
1 1/2	1 1/2	1/4	2	1.75	2.00
2	2 1/2	3/8	2 1/4	2.10	2.35
3	4	3/8	2 1/2	2.55	2.85
4	5	3/8	2 3/4	3.15	3.50
5	10	1/2	3 5/16	3.90	4.30
6	18	1/2	3 9/16	4.80	5.30
8	34	3/4	4 9/16	10.00	12.00

No. 546 SENTINEL OIL CUPS



Fig. 35358C

No.	Cap. Oz.	Size Thread Inches	Outside Diam. Inches	PRICE, EACH	
				Fin. Bronze	Nickel- plated
0	5/8	1/8	1 1/2	3.00	3.50
1	1	1/4	1 3/4	3.25	3.75
1 1/2	1 1/2	1/4	2	3.50	4.00
2	2 1/2	3/8	2 1/4	3.75	4.25
3	4	3/8	2 1/2	4.25	4.75
4	5	3/8	2 3/4	5.25	5.75
5	10	1/2	3 5/16	7.25	8.00
6	18	1/2	3 9/16	9.25	10.25
8	34	3/4	4 9/16	20.00	22.00

LUNKENHEIMER OIL CUPS, OILERS AND OIL CUP GLASSES

LUNKENHEIMER SPRING LID OIL CUPS

No. 209 SMALL BASE



No. 208 LARGE BASE



Fig. 36741A

No.	Capacity Ounces	Size Inches	Thread Diam. Inches	PRICE, EACH		No.	Capacity Ounces	Size Inches	Thread Diam. Inches	Price, Each	
				Small Base	Large Base						
00	$\frac{1}{2}$	$\frac{1}{8}$	$\frac{5}{8}$	.40	.65	5	$1\frac{3}{4}$	$\frac{3}{8}$	$1\frac{5}{8}$	1.60	1.80
0	$\frac{1}{2}$	$\frac{1}{8}$	$\frac{3}{16}$	.50	.80	6	$2\frac{1}{2}$	$\frac{3}{8}$	$1\frac{5}{8}$	1.70	2.20
1	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{7}{8}$	.60	1.00	7	$3\frac{1}{2}$	$\frac{1}{2}$	2	2.00	2.60
2	$\frac{1}{2}$	$\frac{1}{4}$	$1\frac{1}{16}$	.70	1.20	8	$4\frac{1}{2}$	$\frac{1}{2}$	$2\frac{3}{8}$	2.50	3.00
3	$\frac{1}{2}$	$\frac{1}{4}$	$1\frac{1}{4}$	1.00	1.35	9	$6\frac{1}{2}$	$\frac{1}{2}$	$2\frac{7}{8}$	2.90	3.50
4	$1\frac{1}{4}$	$\frac{1}{8}$	$1\frac{1}{2}$	1.25	1.60	..	..	..	..	..	..

No. 591 CHAMPION OIL CUP

No. 533 SHAFT
OILERNo. 57 LOOSE PULLEY
OILERNo. 526
OIL CUP
GLASS

Fig. 36741C

CHAMPION OIL CUPS

Number	Capacity	Size, Thread	Price, Finished Bronze	1	2	3	3½
.....	.....ounces	.....inch	.....each	$1\frac{1}{4}$	$2\frac{1}{2}$	5	8
.....	.....ounces	.....inch	.....each	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
.....	.....ounces	.....inch	.....each	1.40	2.00	2.60	3.50

NOS. 533 AND 537 OILERS

Number	Size, number	*1	*2	*3	*0	*1	*2	3	4
.....	.....ounces	1	$1\frac{5}{8}$	$2\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{3}{4}$
.....	.....ounces	$1\frac{3}{4}$	2	$2\frac{1}{2}$	1	$1\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
.....	.....ounces	50	.55	.60	.25	.30	.40	.50	.65

*Shanks threaded $\frac{3}{8}$ -inch bolt hole. Nos. 3 and 4 loose pulley oilers have $\frac{1}{4}$ -inch pipe thread.

OIL CUP GLASSES AND CORKS

Number	Outside Diameter	Height, Cylindrical	Price, Cylindrical Body Glasses, No. 526	000	00	0	1	$1\frac{1}{2}$	2	3	4	5	6	8
.....	in.	"	each	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$4\frac{1}{4}$
.....	.....in.	....."	.....each	40	50	.60	.70	.80	.90	1.00	1.10	1.30	1.90	4.30

LUNKENHEIMER GREASE CUPS

JEWEL AND IDEAL GREASE CUPS

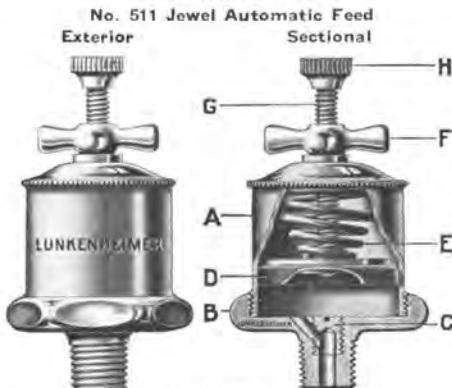


Fig. 24595A

Automatically feeds grease by means of a spring actuated plunger. The leather disc, held securely between plates, keeps grease from passing.

MARINE AND ATLAS GREASE CUPS

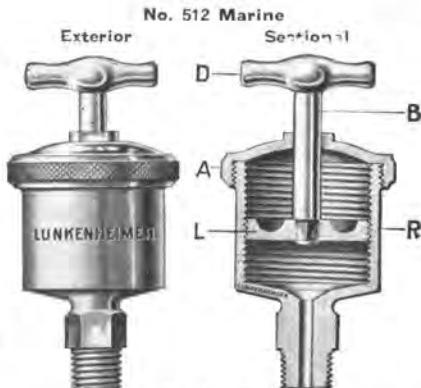


Fig. 24595C

With screw feed. It is designed more particularly for use on marine engines. Body is made heavy to withstand rough usage.

No. 510 Ideal Automatic Feed

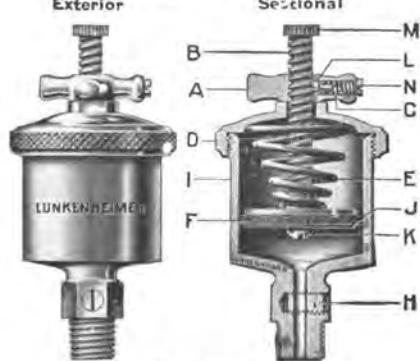


Fig. 24595B

A light, inexpensive reliable cup of the automatic type. Adapted for feeding lighter forms of grease.

No. 1030 Atlas

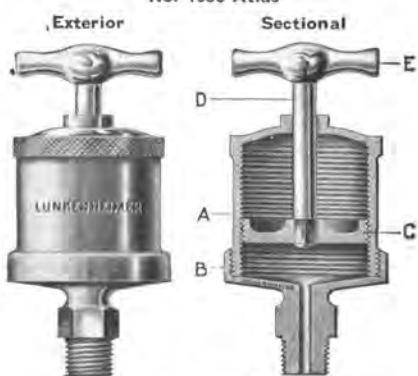


Fig. 24595D

This cup has the advantage of being easily filled. The body is removable for this purpose.

No.	Size		JEWEL		IDEAL		PRICE, EACH
	Cap Ounces	Thread Inches	Brass Fin.	N. P.	Bronze Fin.	N. P.	
00	1 1/3	1 1/4	.80	1.00	1.50	1.75	
0	1	1 1/4	1.00	1.30	2.00	2.25	
1	1 1/2	1 1/4	1.30	1.70	2.50	2.80	
2	3	3/8	1.70	2.20	3.20	3.60	
3	6	1/2	2.30	2.90	4.30	5.00	
4	10	1 1/2	3.20	3.90	6.00	6.75	
5	18	3/4	....	....	12.50	13.80	

No.	Size		MARINE		ATLAS		PRICE, EACH
	Cap Ounces	Thread Inches	Bronze Fin.	N. P.	Bronze Fin.	N. P.	
00	1 1/3	1 1/4	1.00	1.20	1.10	1.30	
0	1	1 1/4	1.20	1.45	1.40	1.65	
1	1 1/2	1 1/4	1.60	1.90	1.80	2.10	
2	3	3/8	2.00	2.40	2.20	2.60	
3	6	1/2	2.80	3.40	3.40	4.00	
4	10	1 1/2	4.00	4.75	4.50	5.25	
5	18	3/4	7.00	8.20	7.60	8.80	

LUNKENHEIMER GREASE CUPS

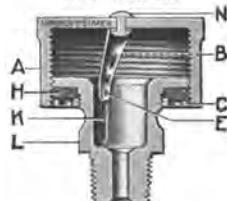
No. 513 TIGER PLAIN BRONZE GREASE CUPS

EXTERIOR



Fig. 37451A

SECTIONAL



This is a cast bronze cup well adapted for use on jarring machinery, and is unsurpassed where a simple, compact and efficient plain cup is required.

By screwing down cap A, the lubricant is forced to the bearing. The leather washer H prevents the grease from leaking out of cup, and can be easily replaced when worn out; spring lock arrangement B, the projection E of which engages K at each turn, prevents the cup from jarring off, also cuts and loosens the grease.

Number	000	00	0	1	2	3	4
Inside Diameter.....inches	11/16	7/8	1 1/4	1 3/8	1 7/8	2 3/8	2 7/8
Extreme Outside Diameter....."	7/8	1 1/8	1 1/2	1 5/8	2 1/8	2 11/16	3 1/8
" Height, Over All (Cup Open). "	1 7/16	1 1/2	1 3/4	1 15/16	2 3/16	2 1/2	2 3/4
Shank Pipe Thread....."	1/8	1/8	1/4	1/4	3/8	1/2	1/2
Capacity (Grease).....ounces	1/8	1/2	2/3	1	2	3 1/2	5
Price, No. 513, Finished Bronze.....each	.50	.70	.90	1.15	1.50	2.15	3.30

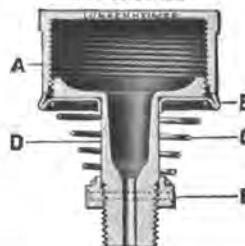
No. 24 GUARD RATCHET GREASE CUPS

EXTERIOR



Fig. 37451B

SECTIONAL



While the Guard Cup was designed especially for automobile use, it is equally well adapted to all machinery subject to excessive vibration. The ratchet plate is free to slide up and down on the base, but cannot revolve, being held by two flat sides; the ratchet teeth are formed so as to positively lock the cap against unscrewing.

To remove cap for refilling, the ratchet plate is pressed down and given a quarter turn in the groove just above the hexagon. The shoulder formed by this groove holds the plate out of engagement with the cap, which can then be unscrewed with ease. After the cap is filled and replaced, the ratchet plate is released to its normal position.

The cup is very strong, and will readily stand the severe usage to which cups of this kind are usually subjected.

Number	000	00	0	1	2
Inside Diameter.....inches	11/16	7/8	1 1/4	1 3/8	1 7/8
Extreme Outside Diameter....."	15/16	1 3/16	1 1/2	1 15/16	2 1/4
" Height, Over All (Cup Open). "	2 1/16	2 5/16	2 9/16	2 13/16	3 3/16
Shank Pipe Thread....."	1/8	1/8	1/4	1/4	3/8
Capacity (Grease).....ounces	1/8	1/2	2/3	1	2
Price, No. 24, Finished Brass.....each	.45	.55	.70	.85	1.40

LUNKENHEIMER GREASE CUPS

No. 4 WINGO GREASE CUPS



Fig. 29247A

This is a high-grade steel grease cup and differs from the Primo only in the addition of the wing handle on the cap.

Unless otherwise specified, the plain finished cups are regularly furnished, but upon special order Wingo can be had blued steel or nickel-plated.

O. S. No.	Diam. In.	Hgt. In.	Thd. In.	Cap. Oz.	Price Each
000	5/16	2 5/16	1/8	1/8	.45
00	1 3/16	2 9/16	1/8	1/2	.60
0	1 1/2	2 15/16	1/4	2/3	.75
1	1 15/16	3 1/8	1/4	1	.90
2	2 1/4	3 5/8	3/8	2	1.35

No. 1090 SECURO GREASE CUPS

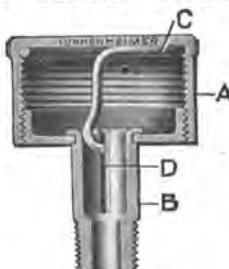


Fig. 29247B

A plain steel grease cup equipped with a simple though effective locking device.

O. S. No.	Diam. In.	Hgt. In.	Thd. In.	Cap. Cz.	Price Each
000	7/8	1 7/16	1/8	1/8	.45
00	1 1/8	1 9/16	1/8	1/2	.55
0	1 7/16	1 9/16	1/4	2/3	.75
1	1 5/8	2 1/16	1/4	1	.85
2	2 3/16	2 9/16	3/8	2	1.00

No. 23 PRIMO GREASE CUPS



Fig. 29247C

The Primo Grease Cup is a simple, screw compression cup, with a spring ratchet attachment to prevent the cap from jarring off. It is made entirely of steel, the shank being made of steel rod to insure the greatest strength possible.

Plain finished cups are regularly furnished, unless otherwise specified, but upon special order the Primo can be had blued steel or nickel-plated.

O. S. No.	Diam. In.	Hgt. In.	Thd. In.	Cap. Oz.	Price Each
000	5/16	1 7/8	1/8	1/8	.40
00	1 3/16	2 1/16	1/8	1/2	.50
0	1 1/2	2 3/8	1/4	2/3	.65
1	1 15/16	2 9/16	1/4	1	.80
2	2 1/4	2 5/16	3/8	2	1.25

No. 1089 FERRO GREASE CUPS



Fig. 29247D

O. S. No.	Diam. In.	Hgt. In.	Thd. In.	Cap. Oz.	Price Each
000	7/8	1 7/16	1/8	1/8	.40
00	1 1/8	1 9/16	1/8	1/2	.45
0	1 7/16	1 9/16	1/4	2/3	.60
1	1 5/8	2 1/16	1/4	1	.70
2	2 3/16	2 9/16	3/8	2	.85
3	2 5/8	3	1/2	3 1/2	1.20
4	3 1/8	3 1/4	1/2	5	1.80

CROSS OIL FILTERS

EXTERIOR



SECTIONAL

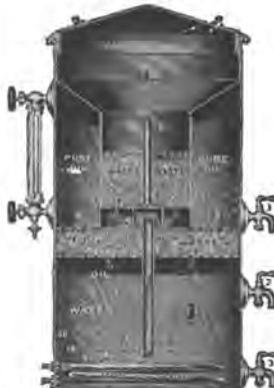


Fig. 18400A

Recommended for filtering engine and common machinery oils. For cleaning lard, cylinder, gas engine, and heavy oils, the Burt Unit Oil Filter and the American Oil Filter are recommended.

Nos. 1, 2 and 3 sizes are made as shown in the sectional view on this page. No. 4 and larger sizes with connections for oiling system.

Very little steam (exhaust) is required, and if the filter is kept in a warm place it will not be necessary to make steam connections. The object of using heat is to increase the speed and capacity of the filter.

STYLE A

Where lubricating oil is used in very large quantities it is desirable, in the interest of economy, to make pipe connections by means of gate valves so that the filtered oil can be pumped to any part of the plant desired. For this purpose Style A is recommended. Also recommended for use with oiling systems.

STYLE B

In many power plants water becomes mixed with the waste lubricating oil, and considerable difficulty is often experienced in filtering this mixture. Style B is not only recommended, but guaranteed to separate water automatically from the waste oil and at the same time to clean the oil so that it can be used over and over again.

Style B Filter will also take the condensed water and oil from oil separators

and exhaust heads and successfully separate the oil from the water and filter the oil perfectly, so that it (the reclaimed cylinder oil) will make an excellent lubricant for pumps and other machinery.

Number.....	1	2	3
-------------	---	---	---

*Filtering Cap... gal.	20 to 30	5 to 10	40 to 50
------------------------	----------	---------	----------

Dirty Oil " "	7	3	17
---------------	---	---	----

Pure " " "	11	3	20
------------	----	---	----

Diam., Cross ... in.	18	12	24
----------------------	----	----	----

" Style A... "	18	..	24
----------------	----	----	----

" " B... "	25	18	31
------------	----	----	----

Price, Cross..... each	37.00	25.00	75.00
------------------------	-------	-------	-------

" Style A... "	45.00	..	80.00
----------------	-------	----	-------

" " B... "	50.00	35.00	90.00
------------	-------	-------	-------

Number.....	4	5	6
-------------	---	---	---

*Filtering Cap... gal.	60 to 70	70 to 90	100 to 120
------------------------	----------	----------	------------

Dirty Oil " "	26	32	45
---------------	----	----	----

Pure " " "	37	49	60
------------	----	----	----

Diam., Cross ... in.	30	33	35
----------------------	----	----	----

" Style A... "	30	33	35
----------------	----	----	----

" " B... "	37	40	42
------------	----	----	----

Price, Cross..... each	90.00	110.00	130.00
------------------------	-------	--------	--------

" Style A... "	100.00	120.00	135.00
----------------	--------	--------	--------

" " B... "	110.00	130.00	160.00
------------	--------	--------	--------

Number.....	7	8
-------------	---	---	-------

*Filtering Cap... gal.	120 to 150	150 to 200
------------------------	------------	------------	-------

Dirty Oil " "	52	57
---------------	----	----	-------

Pure " " "	75	90
------------	----	----	-------

Diam., Cross ... in.	35	40
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" Style A... "	35	40
----------------	----	----	-------

" " B... "	42	47
------------	----	----	-------

Price, Cross..... each	160.00	190.00
------------------------	--------	--------	-------

" Style A... "	165.00	200.00
----------------	--------	--------	-------

" " B... "	175.00	220.00
------------	--------	--------	-------

*Per day of 24 hours.

BURT UNIT TYPE OIL FILTERS

THREE UNITS CONNECTED AND OPERATED AS ONE FILTER

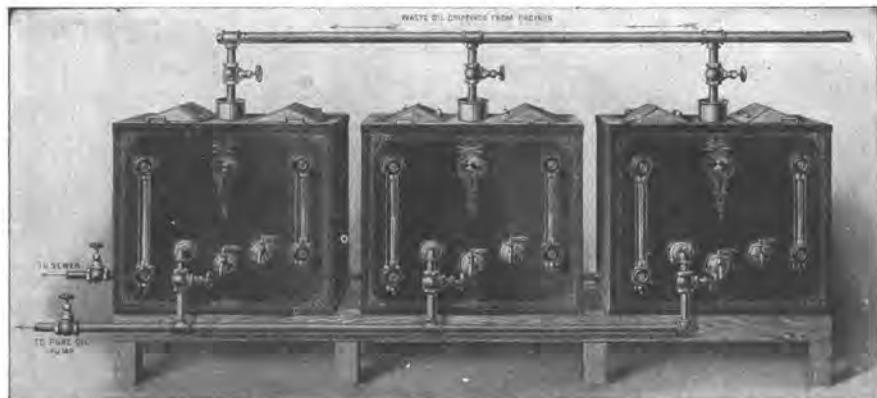


Fig. 6718A



Fig. 6718B

In the Burt Oil Filter, Unit type, the dirty oil enters the waste oil receptacle and passes through the small perforations, flowing thence horizontally to the two filtering cylinders, and in passing to these cylinders the heavy impurities fall by gravity into the sediment pan, and therefore do not clog up the filtering cloths or filtering material. Each cylinder is wrapped with a cloth through which the oil must pass before entering the filtering cylinder. After passing through a quantity of animal boneblack, the oil passes down through the two tubes into the bottom of the filter. By means of plates attached to the bottom of the

tubes, the oil is spread out in a very thin film and is thoroughly washed by the water, and any remaining impurities in the oil drop to the bottom of the filter and can be flushed out at any time desired by simply opening the gate valve, which connects with the sewer.

Special attention is called to the hot-water chamber in the upper part of the Burt Filter. This important feature is found only in the Burt style, and is fully covered by letters patent. The object in heating the oil before filtering, is to cause it to flow more freely, thus increasing the speed of filtration and the filter capacity. When the dirty oil is heated, it spreads out, and most of the dirt and grit then falls into the sediment pan.

No.	Units	Filtering Capacity *Gallons	Pure Oil Chamber Gallons	Waste Oil Chamber Gallons	Price Each
10	1	100 to 150	50	10	100.00
15	1	250 "	400	90	160.00
16	2	500 "	800	180	320.00
17	3	750 "	1200	270	480.00
18	4	1000 "	1600	360	640.00
19	5	1250 "	2000	450	800.00
20	6	1500 "	2400	540	960.00

*Per day of 24 hours.

Upon receipt of information as to the quantity and kind of oil used per hour, and the kind of machinery to be oiled, special quotations covering filters required will be submitted upon application.

STEEL AND BRASS OILERS

BRAZED STEEL BENCH OILERS

STRAIGHT SPOUT



Fig. 31901A

BENT SPOUT



Fig. 31901B

These oilers are made of No. 20 B. & S. gauge cold-rolled steel. Bushings are of solid brass castings, machine cut. Leather washers are cut from split sides. All lengths of spouts are interchangeable. Oilers copper or nickel-plated to order.

The 6 and 9-inch spouts are furnished bent unless otherwise ordered.

Number.....	1603	1604	1606
Capacity..... pints	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
Length of Spout.inches	3	4	6
Diam. of Oiler..."	$3\frac{3}{8}$	$3\frac{3}{8}$	$3\frac{3}{8}$
Price..... per dozen	4.75	5.00	5.50
Number.....	1609	1703	1704
Capacity..... pints	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$
Length of Spout.inches	9	3	4
Diam. of Oiler..."	$3\frac{3}{8}$	$3\frac{3}{4}$	$3\frac{3}{4}$
Price..... per dozen	6.00	5.75	6.00
Number.....	1706	1709	1803
Capacity..... pints	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Length of Spout.inches	6	9	3
Diam. of Oiler..."	$3\frac{3}{4}$	$3\frac{3}{4}$	$4\frac{1}{8}$
Price..... per dozen	6.50	7.00	6.75
Number.....	1804	1806	1809
Capacity..... pints	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Length of Spout.inches	4	6	9
Diam. of Oiler..."	$4\frac{1}{8}$	$4\frac{1}{8}$	$4\frac{1}{8}$
Price..... per dozen	7.00	7.50	8.00
Number.....	1903	1904	1906
Capacity..... pints	1	1	1
Length of Spout.inches	3	4	6
Diam. of Oiler..."	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$
Price..... per dozen	7.75	8.00	8.50
Number.....	1909	.....	.....
Capacity..... pints	1	.....	.....
Length of Spout.inches	9	.....	.....
Diam. of Oiler..."	$4\frac{1}{2}$	.....	.....
Price..... per dozen	9.00	.....	.....

BENCH OILERS

COPPERIZED STEEL



Fig. 31901C

Steel oilers are made from 20-gauge cold-rolled steel with high-grade clock spring steel bottoms. Heavy electro copper-plated inside and out.

BRASS

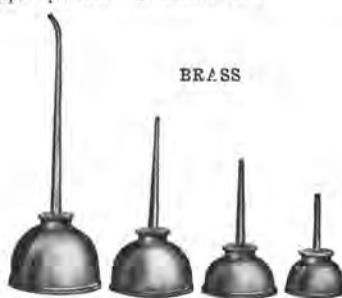


Fig. 31901D

Brass oilers are made of 20-gauge brass, highly polished and lacquered.

Have collar attached to body of can and cap to spout without soldering or brazing. This makes practically solid joints.

NUMBER	Cap.	Spout	PRICE, PER DOZ.
Steel	Brass	Pints Inches	Steel Brass
12	120	$\frac{1}{4}$	$2\frac{1}{2}$
13	130	$\frac{1}{3}$	3
13A	130A	$\frac{1}{3}$	5
14	140	$\frac{1}{3}$	9
14A	140A	$\frac{1}{2}$	3
14AA	140AA	$\frac{1}{2}$	5
14B	140B	$\frac{1}{2}$	9
15	150	1	3
15A	150A	1	5
16	160	1	9

All oilers can be fitted with spouts $2\frac{1}{2}$ to 18 inches in length. These spouts are interchangeable and will fit other styles of oilers.

FLUE SCRAPERS AND BRUSHES

ENGINEERS' FAVORITE FLUE SCRAPERS

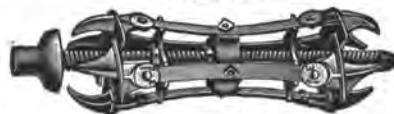


Fig. 33812A

Price, 1 $\frac{3}{4}$ -inch each 2.00
" 2 to 6-inch per inch 1.00

No. 575 FLUE BRUSHES



Fig. 33812B

Price, 2 to 6-inch, per diam. inch 1.00

No. 610 ROUND WIRE BRUSHES



Fig. 33812C

Price, 1 to 2-inch each 2.00
" 2 " 6 " per inch 1.00

No. 613 OVAL BRUSHES



Fig. 33812D

Size Inches	Price Each	Size Inches	Price Each
2 x3	1.00	2 $\frac{1}{2}$ x5	1.40
2 x4	1.10	3 x4	1.30
2 $\frac{1}{2}$ x4	1.20	3 x5	1.50

No. 626 BOILER BRUSHES



Fig. 33812E

Size Inches	Price Each	Size Inches	Price Each
6x4 $\frac{1}{2}$ x2 $\frac{3}{4}$	2.00	4 $\frac{1}{2}$ x4x1 $\frac{3}{4}$	1.00

ELLIPTICAL SCRAPERS



Fig. 33812F

Price, 1 $\frac{1}{2}$ and 1 $\frac{3}{4}$ -inch each 2.00
" 2 to 6-inch per inch 1.00

No. 640 BRUSHES



Fig. 33812G

Price, Size 3x5x1 Inches each .75

No. 585 FLAT WIRE BRUSHES



Fig. 33812H

Price, 1 to 2-inch each 2.00
" 2 " 6 " per inch 1.00

MAGIC STEAM FLUE CLEANERS



Fig. 33812J

Size Tube Inches	Price Each	Size Tube Inches	Price Each
2 to 2 $\frac{1}{4}$	5.00	3 $\frac{1}{2}$ to 3 $\frac{3}{4}$	8.75
2 $\frac{1}{2}$ " 2 $\frac{3}{4}$	6.25	4 " 4 $\frac{1}{2}$	10.00
3 " 3 $\frac{1}{4}$	7.50	5 " 6	12.50

No. 612 RECTANGULAR BRUSHES

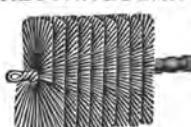
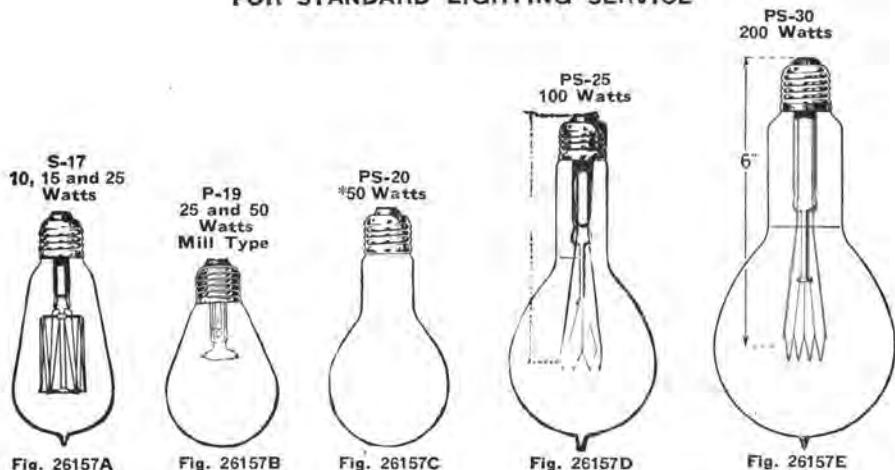


Fig. 33812K

Size Inches	Price Each	Size Inches	Price Each
1 $\frac{1}{8}$ x3 $\frac{1}{4}$ x3 $\frac{3}{4}$	.80	2 $\frac{1}{2}$ x3 $\frac{1}{2}$ x4 $\frac{3}{4}$	1.10
2 x3 $\frac{1}{4}$ x3 $\frac{3}{4}$	.90	2 $\frac{1}{2}$ x4 " x4 $\frac{1}{4}$	1.20
2 x3 $\frac{3}{4}$ x4 $\frac{3}{4}$	1.00	2 $\frac{3}{4}$ x4 $\frac{1}{2}$ x6	1.30

MAZDA LAMPS

FOR STANDARD LIGHTING SERVICE



These lamps constitute more than 75 per cent of the ordinary lamp demand for such service as residence, store and office lighting. The higher wattage sizes are used for various industrial and store lighting purposes. The lamps are for use on ordinary 110 to 125-volt lighting circuits. Proper reflector equipment should be provided to protect the eyes from the extremely bright filaments of Mazda C lamps, especially whenever the lamps are hung low in the usual line of vision.

STRAIGHT SIDE BULB—MAZDA B LAMPS—110, 115 AND 120 VOLTS

Rated Watts	Approx. Lumens	Type Bulb	Diam. Inches	Length Inches	Base Regularly Furnished	Std. Pkg.	PRICE, EACH
10	80	S-17	2 1/8	5 1/16	Med. Screw	120	.32 .37
15	130	S-17	2 1/8	5 1/16	" "	120	.32 .37
25	240	S-17	2 1/8	5 1/16	" "	120	.32 .37
40	400	S-19	2 3/8	5 9/16	" "	120	.32 .37
50	500	S-19	2 3/8	5 9/16	" "	120	.32 .37
60	620	S-21	2 5/8	5 11/16	" "	120	.37 .42

STRAIGHT SIDE BULB—MILL TYPE MAZDA LAMPS—110, 115 AND 120 VOLTS

25	200	P-19	2 3/8	3 15/16	Med. Screw	120	.37 .42
50	420	P-19	2 3/8	3 15/16	" "	120	.37 .42

PEAR-SHAPED BULB—MAZDA C LAMPS—110, 115 AND 120 VOLTS

*50	450	PS-20	2 1/2	5 1/8	Med. Screw	60	.... .50
75	880	PS-22	2 3/4	6 3/16	" "	60	.55 .60
100	1300	PS-25	3 1/2	7 1/4	" "	24	.70 .75
150	2100	PS-25	3 1/8	7 1/4	" "	24	.90 .95
200	3000	PS-30	3 3/4	8 7/16	" "	24	1.15 1.25
300	4900	PS-35	4 1/8	9 15/16	Mog.	24	1.75 1.35
500	9000	PS-40	5	10 5/16	" "	12	2.50 2.65
750	14000	PS-52	6 1/2	13 9/16	" "	8	3.75 3.95
1000	20000	PS-52	6 1/2	13 9/16	" "	8	4.25 4.50

Lamps of voltages of 100 to 109 and 126 to 130, inclusive, are not regularly carried in stock, but may be obtained at the same prices.

†Orders should specifically state if lamps are to be burned in other than the pendent position.

*White Mazda lamps.

FIRE EXTINGUISHERS

PYRENE FIRE EXTINGUISHERS

With Bracket



Fig. 39650A

In Metal Box



Fig. 39650B

Safe and most efficient for electrical and all fires starting in oil, gasoline, shellac, paints or other highly inflammable substances.

Pyrene is being adopted as standard fire protection for incipient fires by large railroad companies, factories, and power plants all over the United States.

Liquid



Fig. 39650C

Price, with Bracket.....	each	10.00
" " Metal Box, Heavy		
Type.....	each	14.00
Price, with Metal Box, Light		
Type.....	each	13.00
Price, with Holster.....	"	11.00
" Metal Boxes, only, Heavy		
Type.....	each	4.00
Price, Metal Boxes, only, Light		
Type.....	each	3.00
Price, Holsters Only.....	"	1.50
Liquid.....	per quart	1.50
" "	" gallon	6.00

ACCURATE FIVE-GALLON PUMP TANK FIRE EXTINGUISHERS

This pump tank is extremely simple. Its five-gallon capacity is ample to extinguish a good size fire. Double acting pump throws a powerful steady stream approximately 50 feet.

Recommended for protection of railroad property, docks, cold storage plants, unheated warehouses, farm property, lumber camps, lumber yards, grain elevators, coal yards, ice houses, etc. Can be used with non-freezing solution.

Approved and labeled by the Underwriters' Laboratories. Diameter, $9\frac{1}{2}$ inches. Height over all, $27\frac{1}{4}$ inches. Length of hose, 2 feet. Internal diameter of hose, $\frac{3}{8}$ inch. Nozzle outlet, $\frac{1}{8}$ inch. Weight of tank empty, 13 pounds; filled, $52\frac{1}{2}$ pounds. Price, Complete each



Fig. 39650D

GUARDENE FIRE EXTINGUISHERS

Embody all latest improvements in soda and acid machines. Powerful enough to handle a free-burning fire in its early stages.

Not recommended for use where there is danger of freezing or for use on electrical fires, or fires in highly inflammable or volatile liquids. Has a 17-inch flexible hose, enabling operator to aim stream in any direction.



Fig. 39650E

Made of cold rolled copper, burnished outside and heavily plated inside with non-corrosive plating. In the head is a cage which holds a bottle half-filled with sulphuric acid. Tank is filled with a solution of bicarbonate of soda and water.

Capacity, $2\frac{1}{2}$ gallons. Weight filled, 40 pounds.

Approved and labeled by the Underwriters' Laboratories.

Prices upon application.

PARA-BELL TIRES AND TUBES

Cord Tires



Fig. 7041A

Fabric Tires



Fig. 7041B

CORD TIRES

This tire is noted for perfect balance in construction, its rugged rubber, impregnated cord carcass matching the great toughness of its tread stock. It wears evenly, yields remarkable mileage, and is unsurpassed in flexibility and easy riding qualities. By a special feature of construction, the sidewall is completely protected by the overlapping of the tread stock which extends clear to the bead, insuring the sidewalls against rut wear, curb cuts and other injuries. The Para-Bell Cord combines an efficient non-skid tread with easy steering, made possible by the Para-Bell Wear-Strip around the center of the tread. This tire is striking in appearance, showing a deep rich black over all.

Also made as Giant Pneumatic Truck Tires in sizes 3½ to 8 inches diameter, 30 to 40-inch rim and 6 to 12 ply.

FABRIC TIRES

Built to give maximum strength with maximum flexibility. Tough tread stock completely protects the sidewall, as in the Para-Bell Cord, and the same rich black appearance is obtained. A high quality product.

TUBES

Composed of almost pure gum, these tubes are live, elastic, extra sturdy. Proof against pin holes and air leaks because they are built by the laminated process. In other words they are built up of many fine, thin layers of rubber gum, one upon the other, and in criss-cross fashion.

The new Para-Bell Heavy Duty Black Tube is 98 per cent pure gum and is a supreme quality tube for special use in cord casings.

Prices upon application.



Fig. 7041C

WASTE, OAKUM, ETC.**WASTE**

Fig. 17956A

Price, White per pound
" Colored "

SPUN OAKUM

Fig. 17956B

Price, Plumbers' Spun Oakum, in 50 pound Bales per pound .10

ROPE OAKUM

Fig. 17956C

Price, Rope Oakum, in 50-pound Bales per pound .15

SECTIONAL PIPE INSULATIONS

ASBESTO-SPONGE FELTED



Fig. 15911A

For insulating pipe conveying steam at any pressure or temperature. Specially adaptable to high pressure service.
Furnished in Thickness... inches $\frac{1}{2}$ to 3

85 PER CENT MAGNESIA



Fig. 15911B

The 85 per cent magnesia is for the insulation of pipes conveying steam.
Furnished in Thickness... inches 1 to 3

ANTI-SWEAT



Fig. 15911C

Anti-sweat prevents condensation on outside of cold water pipes.
Furnished in Thickness... inches $\frac{1}{2}$ to 2

ZERO



Fig. 15911D

Zero is to protect pipes from freezing where conditions are not extreme.
Furnished in Thickness... inches $1\frac{1}{4}$

IMPROVED ASBESTOCCEL



Fig. 15911E

Asbestoccel is for medium pressure steam and hot water pipes.
Furnished in Thickness... inches $\frac{1}{2}$ to 3

SECTIONAL PIPE INSULATIONS

LIST PRICE PER LINEAL FOOT

STANDARD THICKNESS

Inside Diam. of Pipe Inches	1 In. Stand. Thick.	1 $\frac{1}{2}$ In. Thick.	2 In. Thick.	**Double Stand. Thick.	3 In. Broken Joint
$\frac{1}{2}$	.22	.46	.75	.65	1.20
$\frac{3}{4}$	.24	.49	.80	.70	1.35
1	.27	.52	.85	.75	1.40
$1\frac{1}{4}$	.30	.56	.90	.80	1.45
$1\frac{1}{2}$	.33	.60	.95	.85	1.55
2	.36	.64	1.00	.90	1.65
$2\frac{1}{2}$	.40	.70	1.05	1.00	1.75
3	.45	.76	1.15	1.10	1.90
$3\frac{1}{2}$	.50	.82	1.25	1.20	2.05
4	.60	.88	1.35	1.40	2.20
$4\frac{1}{2}$	.65	.94	1.45	1.50	2.35
5	.70	1.00	1.55	1.60	2.50
6	.80	1.10	1.70	1.80	2.70
7	1.00	1.20	1.85	2.25	2.90
8	1.10	1.35	2.00	2.50	3.15
9	1.20	1.50	2.20	2.70	3.40
10	1.30	1.65	2.40	2.90	3.65
12	1.85	1.85	2.70	4.10	4.10
14	2.10	2.10	3.00	4.60	4.60
16	2.35	2.35	3.30	5.10	5.10
18	2.60	2.60	3.60	5.60	5.60
20	2.85	2.85	4.00	6.00	6.00
24	3.30	3.30	4.50	7.00	7.00
30	4.00	4.00	5.50	8.40	8.40

*All magnesia coverings above and including 14 inches furnished in segmental form.

**Double standard thick list prices apply only to 85 per cent Magnesia.

ASBESTOS MILLBOARD, PAPER, ETC.**ASBESTOS SHEET MILLBOARD**

Fig. 9943A

Standard sheets 40x40 or 42x44 inches. Especially adapted for fireproof lining of floors, partitions, etc. Also for fire screens, linings for ranges, stoves, grates, gas backs, etc.

Approx. Thickness Inches	Approx. Weight per Sheet Pounds	Approx. Thickness Inches	Approx. Weight per Sheet Pounds
$\frac{3}{8}$	2.40	$\frac{3}{16}$	10
$\frac{6}{16}$	2.75	$\frac{1}{4}$	14
$\frac{1}{2}$	3.65	$\frac{3}{8}$	20
$\frac{3}{4}$	5.50	$\frac{1}{2}$	25
$\frac{1}{8}$	7.00	..	..

Made in three grades, hard, medium and soft. Medium furnished, unless otherwise specified.

Prices upon application.

HAIR FELT

Fig. 9943B

In rolls of 300 square feet; width 6 feet.

Thickness Inches	Price per Square Foot	Thickness Inches	Price per Square Foot
$\frac{1}{4}$	.06 $\frac{1}{2}$	1	.12
$\frac{1}{2}$	.08	$1\frac{1}{2}$	.18
$\frac{3}{4}$	.10	2	.24

MINERAL WOOL

Price, in Sacks of about 60 Pounds per pound

In bulk, prices on application. Weighs about 12 pounds per cubic foot. Bags .20 each

NON-BURN ASBESTOS FELT AND ROLL BOARD

Fig. 9943C

A fireproof material especially adapted for fireproof construction. Asbestos felt weighs 6 to 50 pounds per 100 square feet; asbestos roll board is $\frac{1}{2}$ and $\frac{1}{8}$ -inch thick. In Rolls, width 36 inches.

Prices upon application.

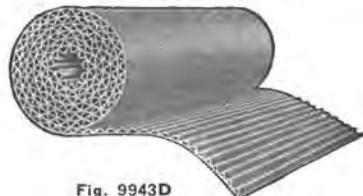
ASBESTOCEL CORRUGATED FIREPROOF PAPER

Fig. 9943D

Price, 1-ply 36 in. wide, $\frac{1}{8}$ in. Thick, 250 Square Feet per Roll, per sq.ft.

Prices upon application.

ASBESTOS CEMENT

Fig. 9943E

Price, Asbestos Cement, in 100-pound Bags per bag

Price, 85 per cent Magnesia, in 60-pound Bags per bag

Prices upon application.

CLEANING COMPOUNDS, ETC.

PORCELA CLEANING COMPOUND



Made especially for cleaning bath tubs, washstands, sinks and bathroom tile. As it contains no grit or acid, it will not leave a sediment to stop up traps or waste pipes or injure the plumbing. It will not scratch the enamel or remove the luster.

Price, 1-lb. Can. each .50

Fig. 6991A

SANI-FLUSH CLOSET CLEANER

Cleans the entire closet bowl—the seen and the unseen parts. Shake into the closet bowl and leave for several hours, and it dissolves the incrustations in the trap, so that it washes out when closet is flushed. Cannot injure the bowl or connections.

Price, 22-oz. Can
Net Weight ea. .50



Fig. 6991B

TASGON



Fig. 6991C

A few drops of Tasgon will instantly dissolve rust and loosen the rustiest nut, bolt, coupling, union, bushing, or connection of any kind.

Price, $\frac{1}{2}$ -pint.....each .65
" Pint....." " 1.00

X BOILER LIQUID



Fig. 6991D

X liquid is an absolute liquid. It has a chemical affinity for water. When it is poured in the leaking boiler it instantly combines itself with the water in the boiler. In sizzling out through the leak or crack, it is changed by the free atmospheric oxygen from a liquid into a solid, thus stopping the leak or crack.

Price, 1-quart Cans.....each 6.00
" $\frac{1}{2}$ -gallon " " 10.00

NOKORODE SOLDERING PASTE



Fig. 6991E

Nokorode Soldering Paste is compounded especially to meet the exacting requirements of the electrical trade. It is guaranteed non-corrosive. Will solder all metals except aluminum. Free from adulteration. Safe as resin. Rapid as acid. Does not turn the metal dark after using.

Price, 2-ounce Can.....each .30
" Case of 36 Two-ounce Cansper case 7.20

HUNTING PIPE JOINT CEMENT

A no-leak paste compound.
Price, 1-pound Can.....each .50
" 5 " " "" 2.00
" 25 " " "" 7.00

CEMENTS, COMPOUNDS, ETC.

SMOOTH-ON CEMENTS

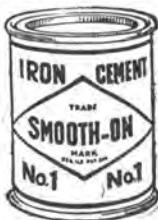


Fig. 2634A

Smooth-On No. 1, in powder form. For stopping leaks in steam, water, fire or oil piping. Used on iron, steel, brass, copper, aluminum, wood, etc. No. 1 is quick hardening and No. 2 is slow hardening.

Price, 1, 5, and 10-pound Blue Label Cans and 25-pound Kegs

..... per pound .50

Smooth-On No. 3 is in paste form. For making screw thread joints, coating gaskets and painting boiler seams.

Price, 1, 5 and 10-pound Gray

Label Cans per pound .50

Smooth-On No. 5, in powder form. For making joints on bell and spigot pipes.

Price, 1, 5 and 10-pound Red Label

Cans and 25-pound Kegs. per pound .50

RUTLAND PIPE JOINT CEMENT

Price, 1-pound Can each .50
" 5 " " " " 2.50

BLUE SEAL DRAIN PIPE SOLVENT



Fig. 2634B

A scientifically prepared chemical compound, a drain pipe solvent that is guaranteed to clear any drain pipe stoppage not caused by glass, metal or other solid substances if properly used. Will not injure wood, glass or metal. Put up in friction top cans.

Price per 2-pound can 1.00
" " 1 " "60

Radiator Bronze



Fig. 2634C

Bronzing Liquid



Fig. 2634D

RADIATOR BRONZE

Price, Gold, 1-pound Can each 2.00
" Aluminum, 1-pound Can " 2.00

BRONZING LIQUID

Price, 1-gallon Can each 2.00

BLACK ASPHALTUM PAINT



Fig. 2634E

Price, 1-gallon Can each 2.00

THREAD CUTTING AND LARD OIL

Price, Thread Cutting Oil, 1-gallon Can each 1.50

Price, Genuine Lard Oil, 1-gallon Can each 2.50

PUTTY



Fig. 2634F

Price, 12½-pound Can per pound .10
" 25 " " "10

PLUMBERS' CANDLES

Price, 1½x5-inch per pound .50

Fig. 2634G

SHEET PACKINGS



Fig. 11339A

CLOTH INSERTION, CLOTH ON ONE SIDE OR BOTH SIDES

Thickness.....	inches	$\frac{1}{2}$	$\frac{3}{16}$	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$
Price, 1-ply.....	per pound	.....	.....	.....	.....	.....	.....
" 2 "	"	.....	.....	.....	.....	.....	.....
" 3 "	"	.....	.....	.....	.....	.....	.....
" 4 "	"	.....	.....	.....	.....	.....	.....

One ply of cloth to every $\frac{1}{16}$ inch thickness. 3 cents per pound additional will be charged for each extra ply of cloth. Carried in stock in rolls 36 inches wide and about 20 yards long.

RAINBOW

This packing is especially adapted for very high pressure and is not affected by any degree of steam heat. It will not harden or blow out. Not affected by oils, ammonia, liquors, steam, heat or alkalies. Made in rolls of about 200 pounds each. Standard width, 36 inches; $\frac{1}{2}$, $\frac{3}{16}$, $\frac{3}{8}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ inch thick.

Price..... per pound

RED AND BLACK ASBESTOS METALLIC

A durable asbestos metallic packing. Gives perfect results against high pressure or superheated steam. Furnished, if desired, with graphite finish one or both sides. Made 39 inches wide and $\frac{1}{2}$, $\frac{3}{16}$, or $\frac{1}{8}$ inch thick.

Price..... per pound

BLACK SHEET

A high grade, tough, oil-proof black packing. Gives best results against high pressure steam, air, ammonia, acids, alkalies, hot oils, syrups and for all other service where a rubber packing is required. Made $\frac{1}{2}$, $\frac{3}{16}$, $\frac{3}{8}$, $\frac{1}{8}$, and $\frac{1}{4}$ inch thick.

Price..... per pound

RED SHEET

This packing has great heat resisting qualities. Made 36 inches wide and in $\frac{1}{2}$, $\frac{3}{16}$, $\frac{3}{8}$, $\frac{1}{8}$, and $\frac{1}{4}$ inch thicknesses.

Price..... per pound

FIBRE SHEET

This packing is guaranteed against any temperature. For oil, steam, water, ammonia, acids, etc.

Price, in Sheets 40x40 Inches, $\frac{1}{2}$ and $\frac{3}{16}$ Inch Thick..... per pound

Prices upon application.

PACKINGS

**COTTON FABRIC SQUARE
PISTON PACKING**

Fig. 601A

Made in sizes $\frac{1}{4}$ to $1\frac{1}{2}$ inches.	
Price, Standard Grade . . per pound	.85
" Hydraulic "	1.25
" Extra Hard "	2.00
" Pure Rubber . . . . . "	....

SQUARE FLAX PACKING

Fig. 601B

Square braided.
Price per pound .75

ASBESTOS ROPE PACKING

Fig. 601C

10, 25 and 50 pounds to the reel.
Price per pound .50

ASBESTOS WICK

Made of pure asbestos fiber. Put up in $\frac{1}{4}$, $\frac{1}{2}$ and 1-pound balls.

Price . . . per pound .50



Fig. 601D



Fig. 601E

**COTTON CANDLE
WICK**

Put up in $\frac{1}{8}$ and $\frac{1}{4}$ -pound balls.

Price per pound .30

ECLIPSE GASKET

Fig. 601F

Made in the following sizes: $\frac{1}{4}$ and $\frac{3}{8}$ -inch diameter for pipe unions, $\frac{1}{2}$ -inch for manhole plates, $\frac{5}{8}$ and $\frac{3}{4}$ -inch for manhole plates, $\frac{7}{8}$ and 1-inch for extra large manhole plates. Prices upon application.

**ASBESTOS FOLDED GASKETS
FOR MANHOLES, HANDHOLES, ETC.**

Fig. 601G

Furnished in any size, shape or thickness. In ordering, give inside diameters and width of flange.

Price per pound 1.50

LEATHER BELTING OAK TANNED



Fig. 963A



Fig. 963B

Width Inches	PRICE, PER FOOT		Width Inches	PRICE, PER FOOT	
	Single	Double		Single	Double
1/2	.12	.24	6	1.44	2.88
3/4	.18	.36	7	1.68	3.36
1	.24	.48	8	1.92	3.84
1 1/4	.30	.60	9	2.16	4.32
1 1/2	.36	.72	10	2.40	4.80
1 3/4	.42	.84	12	2.88	5.76
2	.48	.96	14	3.36	6.72
2 1/4	.54	1.08	16	3.84	7.68
2 1/2	.60	1.20	18	4.32	8.64
2 3/4	.66	1.32	20	4.80	9.60
3	.72	1.44	22	5.28	10.56
3 1/2	.84	1.68	24	5.76	11.52
4	.96	1.92	26	6.24	12.48
4 1/2	1.08	2.16	28	6.72	13.44
5	1.20	2.40	30	7.20	14.40
5 1/2	1.32	2.64	32	7.68	15.36

Width Inches	PRICE, PER FOOT		Width Inches	PRICE, PER FOOT	
	Single	Double		Single	Double
34	8.16	16.32	36	8.64	17.28
38	9.12	18.24	40	9.60	19.20
42	10.08	20.16	44	10.56	21.12
46	11.04	22.08	48	11.52	23.04
50	12.00	24.00	52	12.48	24.96
54	12.96	25.92	56	13.44	26.88
60	14.40	28.80	64	15.36	30.72
68	16.32	32.64	72	17.28	34.56



Fig. 963C

SOLID ROUND BELTING

Size Inches	Style	Price per Foot	Size Inches	Style	Price per Foot
1/8	Heavy	.07	5/16	Regular	.21
3/16	"	.10	5/16	Heavy	.24
1/4	Regular	.14	3/8	Regular	.29
1/4	Heavy	.15 1/2	3/8	Heavy	.33
9/32	Regular	.17	1/2	Regular	.51

PATENT SOLID ROUND BELTING

Size.....	inches	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2
Price.....	per foot	.50	.65	.80	1.15	1.60	2.10	2.70	3.40	4.15	6.00

BRAIDED OR TWISTED ROUND BELTING

Size.....	inches	3/8	1/2	5/8	3/4	7/8	1
Price.....	per foot	.27	.38	.48	.60	.80	.96



Fig. 3191A

RUBBER BELTING

Endless belts, same list as below with extra charge of 6 feet for making endless for belts less than 12 inches wide, and 8 feet for belts 12 inches and wider.

All other widths and plies at proportionate prices.

Seven-ply belts and heavier made to order for purposes where great strength is required.

PRICE, PER FOOT, EFFECTIVE JULY 1, 1918

Size, In.	2-ply	3-ply	4-ply	5-ply	6-ply	7-ply	8-ply	9-ply	10-ply	11-ply	12-ply
1	.18	.20	.24	...	...	...	...	...	...	...	...
1 1/4	.23	.26	.30	...	...	...	...	...	...	...	...
1 1/2	.27	.31	.36	.45	...	...	...	...	...	...	...
1 3/4	.32	.36	.42	.53	...	...	...	...	...	...	...
2	.34	.39	.46	.58	.69	...	...	...	...	...	...
2 1/2	.42	.48	.56	70	.84	...	...	...	...	...	...
3	.48	.55	.65	81	.98	...	...	...	...	...	...
3 1/2	.57	.65	.76	.95	1.14	...	...	...	...	...	...
4	.61	.70	.82	1.03	1.23	1.44	...	...	...	...	...
4 1/2	...	.78	.92	1.15	1.38	1.61	...	...	...	...	...
5	...	.87	1.02	1.28	1.53	1.79	...	...	...	...	...
6	...	1.04	1.22	1.53	1.83	2.14	2.44	2.75	3.06	3.36	3.66
7	...	1.22	1.43	1.79	2.15	2.50	2.86	3.22	3.58	3.94	4.30
8	...	1.31	1.54	1.93	2.31	2.70	3.08	3.47	3.86	4.24	4.62
9	...	1.73	2.16	2.60	3.03	3.46	3.89	4.32	4.76	5.20	5.60
10	...	1.92	2.40	2.88	3.36	3.84	4.32	4.80	5.28	5.76	6.24
11	...	2.11	2.64	3.17	3.69	4.22	4.75	5.28	5.81	6.34	6.87
12	...	2.30	2.88	3.45	4.03	4.60	5.18	5.76	6.33	6.90	7.47
13	...	2.50	3.13	3.75	4.38	5.00	5.63	6.26	6.88	7.50	8.18
14	...	2.69	3.36	4.04	4.71	5.23	6.05	6.72	7.40	8.08	8.76
15	...	2.88	3.60	4.32	5.04	5.76	6.48	7.20	7.92	8.64	9.32
16	...	3.08	3.86	4.62	5.40	6.16	6.94	7.72	8.48	9.24	9.92
18	...	3.46	4.32	5.20	6.06	6.92	7.78	8.64	9.52	10.40	11.30
20	...	3.84	4.80	5.76	6.72	7.68	8.64	9.60	10.56	11.52	12.50
22	...	4.22	5.28	6.34	7.38	8.44	9.50	10.56	11.62	12.68	13.66
24	...	4.60	5.76	6.90	8.06	9.20	10.36	11.52	12.66	13.80	14.96
26	...	6.26	7.50	8.76	10.00	11.26	12.52	13.76	15.00	16.24	17.48
28	...	6.72	8.08	9.42	10.76	12.10	13.44	14.80	16.16	17.52	18.80
30	...	7.20	8.64	10.08	11.52	12.96	14.40	15.84	17.28	18.72	20.16
32	...	7.72	9.24	10.80	12.32	13.88	15.44	16.96	18.48	19.92	21.40
34	...	8.18	9.82	11.46	13.08	14.72	16.36	18.00	19.64	21.12	22.68
36	...	8.64	10.40	12.12	13.84	15.56	17.28	19.04	20.80	22.44	24.16
38	...	10.96	12.78	14.60	16.42	18.24	20.08	21.92	23.76	25.52	27.36
40	...	11.52	13.44	15.36	17.28	19.20	21.12	23.04	24.96	26.80	28.64
42	...	12.10	14.10	16.12	18.14	20.16	22.18	24.20	26.12	28.04	30.00
44	...	12.68	14.76	16.88	19.00	21.12	23.24	25.36	27.48	29.60	31.64
46	...	13.24	15.44	17.64	19.86	22.08	24.28	26.48	28.68	30.88	33.04
48	...	13.80	16.12	18.40	20.72	23.04	25.32	27.60	29.92	32.24	34.44
50	...	14.40	16.82	19.20	21.62	24.04	26.42	28.80	31.24	33.64	36.00
52	...	15.00	17.52	20.00	22.52	25.04	27.52	30.00	32.52	35.00	37.50
54	...	15.58	18.18	20.76	23.36	25.96	28.56	31.16	33.76	36.32	39.00
56	...	16.16	18.84	21.52	24.20	26.88	29.60	32.32	35.00	37.76	40.44
58	...	16.72	19.50	22.28	25.06	27.84	30.64	33.44	36.24	39.00	41.76
60	...	17.28	20.16	23.04	25.92	28.80	31.68	34.56	37.44	40.24	43.00

STITCHED CANVAS AND SOLID WOVEN COTTON BELTING

GANDY STITCHED CANVAS

Adopted December 1, 1922

Width In.	PRICE, PER FOOT				
	4-ply	5-ply	6-ply	8-ply	10-ply
1	.20				
1 1/4	.25				
1 1/2	.30	.45			
2	.39	.49	.59		
2 1/2	.48	.60	.72		
3	.57	.71	.86	1.14	
3 1/2	.65	.81	.98		
4	.74	.93	1.11	1.48	1.85
4 1/2	.81	1.01	1.22	1.62	
5	.90	1.13	1.35	1.80	
6	1.05	1.31	1.58	2.10	
7	1.20	1.50	1.80	2.40	
8	1.35	1.69	2.03	2.70	3.37
9	1.49	1.86	2.24	2.98	
10	1.62	2.03	2.43	3.24	4.05
11	... 2.20	2.64	3.52	...	
12	2.05	2.57	3.08	4.10	5.13
13	...	2.69	3.23	4.30	...
14	2.31	2.90	3.47	4.62	5.78
15	2.48	3.09	3.72	4.96	6.20
16	2.64	3.30	3.96	5.28	6.60
18	2.97	3.72	4.46	5.94	7.43
20	3.30	4.13	4.95	6.60	8.25
22	3.63	4.55	5.45	7.26	9.08
24	3.96	4.95	5.94	7.92	9.90
26	...	6.00	7.20	9.60	12.00
28	...	6.60	7.92	10.56	13.20
30	...	7.20	8.64	11.52	14.40
32	...	...	12.28	15.35	
34	...	...	13.06	16.33	
36	...	...	13.82	17.28	
38	...	...	15.80	19.75	
40	...	...	16.64	20.80	
42	...	...	21.85		
44	...	...	22.88		
48	...	...	19.96	24.95	
50	...	...	26.00		
52	...	...	27.04		
54	...	...	28.08		
56	...	...	29.12		
58	...	...	30.16		
60	...	...	31.20		

SOLID WOVEN COTTON

Effective May 1, 1920

Width Inches	PRICE, PER FOOT				
	2-ply	3-ply	4-ply	5-ply	6-ply
1	.08	.13	.18	.22	.25
1 1/4	.09	.14	.20	.25	.28
1 1/2	.10	.16	.22	.27	.32
1 3/4	.11	.17	.24	.30	.35
2	.13	.19	.26	.32	.39
2 1/4	.14	.21	.28	.34	.42
2 1/2	.15	.23	.30	.37	.45
3	.18	.26	.34	.42	.52
3 1/2	.20	.29	.38	.50	.58
4	.23	.32	.42	.57	.64
4 1/2	.25	.36	.46	.64	.75
5	.28	.39	.50	.70	.84
5 1/2	.30	.42	.54	.76	.92
6	.32	.45	.58	.81	1.00
6 1/2	.34	.48	.63	.87	1.07
7	.36	.51	.68	.94	1.14
8	.43	.59	.78	1.08	1.35
9	.53	.73	.94	1.23	1.52
10	.60	.83	1.08	1.39	1.74
12	.68	.93	1.25	1.68	2.06
14	.79	1.07	1.45	1.94	2.42
16	.90	1.24	1.69	2.21	2.62
18	1.01	1.41	1.93	2.49	2.95
20	1.11	1.62	2.17	2.75	3.32
22	1.21	1.84	2.40	3.15	3.77
24	1.30	2.05	2.64	3.44	4.13
26	1.40	2.25	2.87	3.73	4.59
28	1.50	2.44	3.13	4.06	4.96
30	1.65	2.65	3.41	4.34	5.45
32	1.80	2.86	3.67	4.67	5.93
34	1.95	3.01	3.91	4.98	6.36
36	2.10	3.18	4.11	5.28	6.64
38	2.26	3.36	4.36	5.67	7.08
40	2.40	3.53	4.66	6.00	7.36
42	2.54	3.75	4.94	6.40	7.75
44	2.70	3.93	5.20	6.80	8.10
46	2.85	4.10	5.51	7.18	8.68
48	3.00	4.28	5.82	7.56	9.27
50	...	...	...	...	...
52	...	...	...	...	...
54	...	...	...	...	...
56	...	...	...	...	...
58	...	...	...	...	...
60	...	...	...	...	...

HOSE



Fig. 4331A

WATER CONDUCTING HOSE

Two-ply hose, designed to conduct water under moderate pressure only. Sizes above 3-inch are mainly for tank hose; 3-ply hose, of medium strength, suitable for hydrants, garden and pump uses, street sprinkling, washing decks, etc.

Four-ply hose, recommended for all purposes where a particularly strong and reliable article is required.

Five and 6-ply hose, for use where great resistance to pressure or very severe service is required.

Internal Diam.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$
Price, 2-ply.....	per foot	.20	.25	.33	.42	.50	.58	.66	.75	.83	.92
" 3 "	"	.25	.30	.40	.50	.60	.70	.80	.90	1.00	1.10
" 4 "	"	.30	.37	.50	.62	.75	.87	1.00	1.12	1.25	1.37
" 5 "	"	.37	.46	.62	.77	.93	1.08	1.25	1.40	1.56	1.71
" 6 "	"	.45	.55	.75	.93	1.12	1.30	1.50	1.68	1.87	2.05
Internal Diam.....	inches	3	$3\frac{1}{2}$	4	5	6	7	8	9	10	...
Price, 2-ply.....	per foot	.99	1.16	1.32	1.65	1.98	2.31	2.64	2.97	3.33	...
" 3 "	"	1.20	1.40	1.60	2.00	2.40	2.80	3.20	3.60	4.00	...
" 4 "	"	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	...
" 5 "	"	1.87	2.18	2.50	3.13	3.75	4.38	5.00	5.63	6.25	...
" 6 "	"	2.25	2.62	3.00	3.75	4.50	5.25	6.00	6.75	7.50	...

All intermediate sizes charged at the list price of the next larger size, thus: $1\frac{1}{4}$ -inch is charged at 1 $\frac{1}{4}$ -inch price, etc. Furnished regularly in 25 and 50-foot lengths.

STEAM HOSE

Internal Diam.....	inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Price, 3-ply.....	per foot	.47	.57	.70	.85	1.02	1.18	1.34	1.50	1.66
" 4 "	"	.56	.71	.87	1.04	1.25	1.45	1.66	1.87	2.08
" 5 "	"	.70	.87	1.07	1.30	1.56	1.81	2.07	2.33	2.60
" 6 "	"	.84	1.05	1.28	1.56	1.87	2.17	2.49	2.80	3.12
" 7 "	"	.98	1.23	1.50	1.82	2.18	2.53	2.90	3.27	3.64
" 8 "	"	1.12	1.41	1.70	2.08	2.50	2.90	3.32	3.74	4.16

When ordering, state steam pressure used.

NOTE.—The list on steam hose applies to brewer's, air brake, car heating and air drill hose also.

FIRE AND MILL HOSE

COTTON RUBBER LINED
DOUBLE JACKET FIRE HOSE

Fig. 29118A

Double jacket fire hose is made of best long staple cotton, carefully woven with best quality Para lining or tube. Has extra jacket to permit hard service and give the strength necessary for fire service.

Price, Sizes 2 and 2½ Inches, with Couplings.....per foot .90

COTTON RUBBER LINED
SINGLE JACKET FIRE HOSE

Fig. 29118B

Same quality and construction as the double jacket hose but is made with single cotton jacket of heavy construction with best quality rubber tube or lining.

Price, Sizes 2 and 2½ Inches with Couplings.....per foot .80

NOTE.—Cotton rubber-lined hose should be dried thoroughly, and kept in a well ventilated place to prevent mildew. It is advisable to run water through cotton fire hose every two or three months. This prevents the lining from drying up and prolongs the life.

COTTON RUBBER LINED
MILL HOSE

Fig. 29118C

For mills, factories, warehouses, public buildings, etc. Samples on application. Size.....inches 1¼ 1½ 2 2½ Price.....per foot .45 .50 .65 .80 Above prices do not include coupling.

UNDERWRITERS' COTTON
RUBBER LINED HOSE

Single jacket. Size, 2½ inches. Made of the best long staple cotton carefully woven to conform to Underwriters' specifications and has Para rubber tube of special compound. Furnished when specified complete with couplings. Price.....per foot .90

LINEN FIRE HOSE



Fig. 29118D

For factories, hotels, public buildings and inside protection of all kinds. Woven from highest grades of flax yarns. Will stand any water pressure up to 500 pounds. Furnished in any length up to 500 feet.

Inter. Diam.....inches	¾	1	1¼
Price.....per foot	.25	.30	.35
Inter. Diam.....inches	1½	2	2½
Price.....per foot	.42	.54	.66

Above prices do not include expansion ring couplings.

HOSE FITTINGS

CAST BRASS COUPLINGS
GARDEN HOSE SIZES

Fig. 22857A

Size..... inches $\frac{1}{2}$ $\frac{3}{4}$ 1
 Price..... per dozen 2.40 2.40 4.40
 $\frac{1}{2}$ and $\frac{3}{4}$ -inch furnished with hose
 thread or iron pipe thread. Hose thread
 furnished unless otherwise ordered.

WATER HOSE COUPLINGS

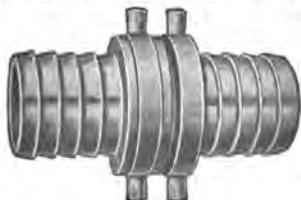


Fig. 22857B

Size Inches	Price per Doz.	Size Inches	Price per Doz.
$\frac{1}{4}$	10.00	3	75.00
$\frac{1}{2}$	14.00	$\frac{3}{2}$	120.00
2	24.00	4	150.00
$\frac{2}{3}$	48.00		

$\frac{1}{4}$ to $2\frac{1}{2}$ -inch, inclusive, have lugs on
 female swivel only 3-inch size and larger
 have lugs on both male and female
 swivels, as shown above in illustration.
 Iron pipe thread furnished unless other-
 wise specified.

STEAM HOSE COUPLINGS



Fig. 22857C

Length Inches	Length Inches	Price per Dozen	Length Inches	Length Inches	Price per Dozen
$\frac{1}{2}$	2	15.00	$\frac{1}{2}$	4	30.00
$\frac{3}{4}$	3	15.00	2	$4\frac{1}{4}$	42.00
1	$3\frac{1}{4}$	18.00	$2\frac{1}{2}$	5	72.00
$1\frac{1}{4}$	$3\frac{1}{2}$	24.00			

Always furnished iron pipe thread.
 Price of female half only of all hose
 couplings, two-thirds of complete set.
 Male half only, one-half of complete set.

SHERMAN HOSE COUPLINGS
FOR GARDEN HOSE

Fig. 22857D

Size..... inches $\frac{1}{2}$ $\frac{3}{4}$ 1
 Price..... per dozen 2.40 2.40 4.40

HOSE NIPPLES

MALE



MALE AND FEMALE



Fig. 22857E

Size Inches	Male Price, per Dozen	Female Price, per Dozen	Size Inches	Male Price, per Dozen	Female Price, per Dozen
$\frac{1}{2}$	3.50	3.50	$\frac{1}{2}$	10.00	10.00
$\frac{3}{4}$	3.50	3.50	2	14.00	14.00
1	5.00	5.00	$2\frac{1}{2}$	28.00	28.00
$1\frac{1}{4}$	9.00	9.00			

REDUCERS AND BUSHINGS
REDUCER

BUSHING



Fig. 22857G

Size Inches	Price per Doz.	Size Inches	Price per Doz.
1 x $\frac{1}{2}$	6.50	$2 \times 1\frac{1}{4}$	16.00
1 x $\frac{3}{4}$	6.50	$2 \times 1\frac{1}{2}$	18.00
$1\frac{1}{4} \times \frac{3}{4}$	8.00	$2\frac{1}{2} \times \frac{3}{4}$	20.00
$1\frac{1}{4} \times 1$	10.00	$2\frac{1}{2} \times 1$	22.00
$1\frac{1}{2} \times \frac{3}{4}$	11.50	$2\frac{1}{2} \times 1\frac{1}{4}$	23.00
$1\frac{1}{2} \times 1$	11.50	$2\frac{1}{2} \times 1\frac{1}{2}$	24.00
$1\frac{1}{2} \times 1\frac{1}{4}$	12.00	$2\frac{1}{2} \times 2$	26.00
$2 \times \frac{3}{4}$	13.00	3 x 2	30.00
2 x 1	14.00	3 x 2 $\frac{1}{2}$	36.00

HOSE FITTINGS

SHERMAN HOSE CLAMPS



Fig. 17370A

Made of heavy sheet brass, of varying thickness for different sizes. The stiff heavy ears form a nut lock, preventing nut from turning when tightened. Will not tip together when drawn up.

FOR WATER HOSE

Size In.	Hose Ply	Price per Doz.	Size In.	Hose Ply	Price per Doz.
1 $\frac{1}{4}$	3	.60	1	3	2.00
3 $\frac{1}{8}$	2	.60	1	4	2.00
3 $\frac{1}{8}$	3	.60	1 $\frac{1}{4}$	3	2.50
1 $\frac{1}{2}$	2	.60	1 $\frac{1}{4}$	4	2.50
1 $\frac{1}{2}$	3	.60	1 $\frac{1}{2}$	3	3.00
1 $\frac{1}{2}$	4	.60	1 $\frac{1}{2}$	4	3.00
3 $\frac{1}{4}$	2	.60	2	3-4	4.00
3 $\frac{1}{4}$	3	.60	2 $\frac{1}{4}$	3-4	6.50
3 $\frac{1}{4}$	4	.60	2 $\frac{1}{2}$	3-4	7.00
1	2	2.00	3	3-4	10.00

FOR STEAM HOSE

Size In.	Hose Ply	Inside Diam. In.	Price per Doz.
3 $\frac{1}{4}$	3	1 $\frac{7}{16}$	2.00
3 $\frac{1}{4}$	4	1 $\frac{11}{32}$	2.00
1	3	1 $\frac{5}{8}$	2.50
1	4	1 $\frac{21}{32}$	2.50
1 $\frac{1}{4}$	3	1 $\frac{15}{32}$	3.00
1 $\frac{1}{4}$	4	1 $\frac{31}{32}$	3.00
1 $\frac{1}{2}$	3-4	2 $\frac{7}{32}$	3.50
1 $\frac{1}{2}$	5	2 $\frac{15}{32}$	4.00
2	3-4	2 $\frac{11}{32}$	5.50
2	5	2 $\frac{7}{8}$	6.50
2 $\frac{1}{2}$	3-4	3 $\frac{1}{4}$	8.50
2 $\frac{1}{2}$	5	3 $\frac{3}{8}$	9.50

EXPANSION RING HOSE COUPLINGS
Regular

Fig. 17370B

In ordering couplings, valves and nozzles, it is important that the customer specify the thread desired. Couplings, valves and nozzles with iron pipe and hose thread are carried in stock, also couplings without threads, from which special threads may be cut promptly.

When special threads are required, it is best to send a sample thread.

Special couplings of style and size for air, steam and water can also be furnished.

REGULAR EXPANSION RING

For plain linen fire hose or cotton ribbed hose and mill hose.

Size inches 1 1 $\frac{1}{4}$ 1 $\frac{1}{2}$ 2 2 $\frac{1}{2}$

Prices on application.

UNDERWRITERS' EXPANSION RING HOSE COUPLINGS



Fig. 17370C

Extra heavy — for fire department service.

Size inches 1 $\frac{1}{2}$ 2 2 $\frac{1}{2}$

Prices upon application.

BRASS EXPANSION RINGS



Fig. 17370D

Size inches 1 1 $\frac{1}{4}$ 1 $\frac{1}{2}$

Price per doz. 1.50 2.00 2.00

Size inches 2 2 $\frac{1}{2}$ 3

Price per doz. 3.00 3.50 4.00

HOSE FITTINGS

UNDERWRITER STANDARD
PLAY PIPES

Fig. 17377A

Wound and painted, metal swivel handle, constructed in accordance with the Underwriters Specifications.

Price.....each 14.00

HOSE PIPES WITH STOPCOCK



Fig. 17377B

Size Inches	Length Inches	Discharge Inches	Price per Doz.
3/4	6	1/4	11.00
3/4	8	1/4	13.00
3/4	12	1/4	18.00
1	8	1/4	15.00
1	12	1/4	20.00
1 1/4	12	3/8	40.00
1 1/4	15	5/8	50.00
1 1/2	12	3/8	55.00
2	12	5/8	80.00
2 1/2	12	7/8	145.00
2 1/2	12	1	145.00

PLAIN NOZZLES



Fig. 17377C

Size Inches	Length Inches	Discharge Inches	Price per Doz.
3/4	6	1/4	7.00
1	8	5/16	9.50
1 1/4	10	3/8	15.00
1 1/2	10	1/2	20.00
2	12	9/16	34.00
2 1/2	12	1	55.00

SCREW TIP NOZZLES



Fig. 17377D

Threads on the tip of all 3/4 and 1-inch screw t.p pipes are 3/8-inch I. P. thread.

Size Inches	Length Inches	Discharge Inches	Price, per Doz. Hose and Iron Pipe, Thread
3/4	6	1/4	7.00
3/4	7 1/2	1/4	8.00
3/4	12	1/4	10.00
1	8 1/2	1/4	10.00
1	12 1/2	1/4	12.00
1 1/4	12	3/8	20.00
1 1/4	15	5/8	24.00
1 1/2	12	1/2	24.00
1 1/2	13	3/2	25.00
1 1/2	15	5/8	30.00
2	19	5/8	40.00
2	12	5/8	38.00
2	15	5/8	45.00
2	20	5/8	50.00
2 1/2	15	5/8	75.00
2 1/2	20	1	96.00
2 1/2	24	1	100.00
2 1/2	30	1	144.00

The above tables give standard discharges on hose pipes and nozzles, and all orders are filled with this size of discharge. Discharges different from the above will be charged for extra.

BOSTON SPRAY NOZZLES



Fig. 17377E

New combinations.

Size Inches	Regular	Mammoth
3/4
1

HOSE CONNECTIONS, VALVES AND VEHICLE WASHERS

No. 221 SIAMESE CONNECTIONS



Fig. 19146A

A short straightway Siamese, medium weight, made with 2 independent automatic closing check valves. Can be furnished with either 2½ or 3-inch inlets and 4 to 6-inch outlets, either rough brass or polished, as desired.

Size Inches	Price Each	Size Inches	Price Each
2½x2½x4	14.00	3x3x6	25.00
3 x3 x4	20.00	.....	.....

For polished finish, add 3.75, net.

CHICAGO PATTERN HOSE VALVES



Fig. 19146B

Standard Chicago Pattern Valves are furnished with rough body, tee handles and leather discs, in either hose or iron pipe thread on hose end and iron pipe thread on lower end, invariably. The 2½-inch size only can also be had with any fire department thread on hose end. If a special thread is required, send sample thread. Extra charge for special thread.

Size Inches	Price Rough Body		Price Rough Body	
	Plain Each	Inches	Plain Each	Inches
1	3.15	2	7.00	.....
1½	3.70	2½	8.50	.....
1½	4.75	.....	.....	.....

Net extra for nickel-plating: 1-inch size, 1.13; for larger sizes, 1.28.

No. 230 SIAMESE CONNECTIONS



Fig. 19146C

A 90-degree double clapper Siamese Connection which is screwed directly on to a supply pipe projecting through the sidewalk. This can be furnished either rough brass or polished, as desired, and with 2½, 3 or 3½-inch inlets and 3, 4 or 6-inch outlets.

Size Inches	Price Each	Size Inches	Price Each
2½x2½x3	16.50	3 x3 x4	22.50
2½x2½x4	16.50	3 x3 x6	37.50
2½x2½x6	37.50	3½x3½x6	40.00

PERFECTION VEHICLE WASHERS

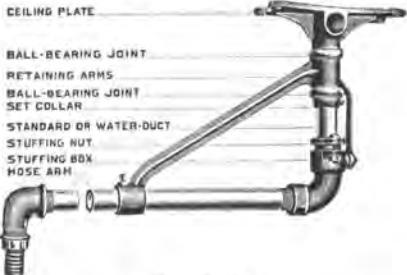


Fig. 19146D

This washer is not only durable, but simple and neat in appearance. The malleable iron castings are made along graceful lines and figured to take up the least space possible and still be equal to the work under all conditions.

The washer requires but ten feet of hose. The latter is attached to a swinging arm revolving on a ball bearing joint. It is always out of the way, thus enabling one to wash vehicles more easily and rapidly.

Price, No. 1, 4½-foot Arm without Hose.....each 12.00

Price, No. 2, 6-foot Arm with Turnbuckle and Brace without Hose.....each 14.00

SWINGING HOSE RACKS

HARTFORD

DEWEY

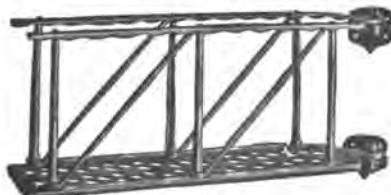


Fig. 6805A



Fig. 6805B

The Dewey Rack is especially recommended for warehouses and manufacturing plants. The hose is folded flat, and as the rack is usually suspended about 6 feet from the floor, the hose is protected from damage and yet is instantly available in case of emergency. It is approved by the Associated Factory Mutual Insurance Companies.

The Hartford Rack is similar to the Dewey Rack, but it is made with an arched bedplate. The advantage of this is that the hose lies better on a rack with an arched bottom, as the arch supports the weight of the hose and relieves the folded ends of any pressure. The top of the hose so folded will be level and not concave. The Underwriters approve a hose rack with an arched bedplate.

Dewey Racks Number	Hartford Racks Number	Size Hose Inches	Capacity Feet	Kind of Hose	Price Each
7	17	1 or 1 1/4	50	Unlined Linen	5.00
8	18	1 1/2	50	" "	5.00
9	19	2	50	" "	5.00
10	20	2 1/2	50	" "	5.00
7A	17A	1 or 1 1/4	75	" "	5.50
8A	18A	1 1/2	75	" "	5.50
9A	19A	2	75	" "	5.50
10A	20A	2 1/2	75	" "	5.50
10B	21A	1 or 1 1/4	100	" "	6.00
11	21	1 1/2 or 2	100	" "	6.00
12	22	2 1/2	100	" "	6.00
13	23	1 1/2 or 2	150	" "	7.00
14	24	2 1/2	150	" "	7.00
13	23	1 1/2 or 2	50	Rubber Lined Cotton Mill	7.00
14	24	2 1/2	50	" " " "	7.00
15	25	1 1/2 or 2	100	" " " "	7.50
16	26	2 1/2	100	" " " "	8.00

List prices include pipe clamps up to and including 4 inch size. For larger size pipe clamps there is a net extra charge per rack as follows:

Size.....	.....inches	5	6	7	8
Price, Iron.....	each	1.00	1.20	1.30	1.80
" Brass.....	"	2.20	2.40	3.00	3.60

Both the Dewey and the Hartford Racks are packed knocked down in individual wooden boxes for convenience. Stock finish is red enamel, baked on. Nos. 15, 16, 25 and 26 will carry heavy rubber-lined cotton hose in 50-foot lengths.

Both racks are furnished with clamps or wall brackets. In ordering, state which attachment is desired, and if any pipe clamps, give the size of the standpipe.

BOWES HOSE RACKS

UNDERWRITERS' LABELED
SEMI-AUTOMATIC RACKS

Fig. 14276A

Approved by the Underwriters' Laboratories. If the valve is opened before the hose is removed from the rack, the first fold of hose will hold water in control, permitting one man to operate the fire station. Rack is made with a nozzle clip. Holds from 50 to 100 feet of $1\frac{1}{4}$ or $1\frac{1}{2}$ -inch unlined linen hose.

Price, Iron, Red Enameled..	each	7.00
" Nickel-plated..	"	9.00
" Brass, Pol. Lacquered..	"	13.00
" Nickel-plated..	"	14.00

Combination escutcheon and wall bracket can be furnished at an additional charge.

Be sure to specify whether rack is to be swung from valve, wall or pipe. When ordering rack with pipe clamps, specify size of standpipe.

IMPORTANT.—Where the racks are swung from the valve, a pipe thread nipple is furnished without charge. For nipples with special threads the following net extra charge per rack applies: $1\frac{1}{2}$ inch, 75 cents; 2 inch, 85 cents; $2\frac{1}{2}$ inch, 1.00.

Brass nipples will be furnished when specified at the following net extra charge per rack: $1\frac{1}{2}$ inch, 95 cents; 2 inch, 1.10; $2\frac{1}{2}$ inch, 1.25.

Where pipe clamps are specified, they are furnished up to and including 4 inch, without charge. For larger sizes, there is a net extra charge per rack, as follows: Iron— $4\frac{1}{2}$ inch, 40 cents; 5 inch, 50 cents; 6 inch, 60 cents; 7 inch, 65 cents; 8 inch, 90 cents. Brass— $4\frac{1}{2}$ inch, 90 cents; 5 inch, 1.10; 6 inch, 1.20; 7 inch, 1.50; 8 inch, 1.80.

UNDERWRITERS' LABELED
STORAGE RACKS

Fig. 14276B

This rack is approved by the Underwriters' Laboratories for the storage of 2- and $2\frac{1}{2}$ -inch unlined linen hose, is neat in appearance and can be furnished in any of the popular finishes listed below.

Clip in front is intended to support nozzle and thus relieve hose of weight of nozzle.

Has a capacity of 50 to 100 feet of 2- or $2\frac{1}{2}$ -inch unlined linen hose.

Price, Iron, Red Enameled..	each	7.00
" Nickel-plated..	"	9.00
" Brass, Pol. Lacquered..	"	13.00
" Nickel-plated..	"	14.00

Combination escutcheon and wall bracket can be furnished at an additional charge.

Be sure to specify whether rack is to be swung from valve, wall or pipe. When ordering rack with pipe clamps specify size of standpipe.

IMPORTANT.—Where the racks are swung from the valve, a pipe thread nipple is furnished without charge. For nipples with special threads the following net extra charge per rack applies: $1\frac{1}{2}$ inch, 75 cents; 2 inch, 85 cents; $2\frac{1}{2}$ inch, 1.00.

Brass nipples will be furnished when specified at the following net extra charge per rack: $1\frac{1}{2}$ inch, 95 cents; 2 inch, 1.10; $2\frac{1}{2}$ inch, 1.25.

Where pipe clamps are specified, they are furnished up to and including 4 inch, without charge. For larger sizes, there is a net extra charge per rack, as follows: Iron— $4\frac{1}{2}$ inch, 40 cents; 5 inch, 50 cents; 6 inch, 60 cents; 7 inch, 65 cents; 8 inch, 90 cents. Brass— $4\frac{1}{2}$ inch, 90 cents; 5 inch, 1.10; 6 inch, 1.20; 7 inch, 1.50; 8 inch, 1.80.

TOLEDO PIPE THREADING DEVICES

No. 0 ADJUSTABLE THREADING DEVICE



Fig. 23106A

No. 0 is a popular little tool. It cuts $\frac{1}{2}$ and $\frac{3}{4}$ -inch threads with one set of dies; $\frac{1}{4}$ and $\frac{5}{8}$ -inch threads with another set, and $\frac{1}{8}$ -inch threads with another set. It differs from other tools of the same capacity in that it uses the receding-die principle for threading $\frac{1}{2}$ and $\frac{3}{4}$ -inch pipe, thus making it an easy operating tool.

It is very light and compact, being only 24 inches long from tip to tip of the handles.

Threads Pipe	inches	$\frac{1}{8}$ to $\frac{3}{4}$
No. of Sets of Dies to Stock	each	3
Price, Complete	each	16.00
" Dies, per Set of 4 Segments	each	2.50

No. 00 RATCHET THREADING DEVICE



Fig. 23106B

This is a remarkably simple, handy little pipe threader. Operates easily, and produces perfectly true tapered threads. Dies changed instantly by pulling the pawl and dropping one die head out or another size in, ready for use.

If the complete tool is not wanted, a combination can be made up as required.

Price, Complete Packed in Pasteboard Carton	each	19.00
Price, Ratchet only	each	3.00
" $\frac{1}{8}$, $\frac{1}{4}$ or $\frac{3}{8}$ -inch Die Heads with Dies	each	3.00
Price, $\frac{1}{2}$ or $\frac{3}{4}$ -inch Die Heads with Dies	each	3.50
Price, Dies, per Set of 4 Segments	each	2.00
Price, Special Oak Case	each	1.00

No. 1 ADJUSTABLE THREADING DEVICE



Fig. 23106C

No. 1 is and has been for a number of years, a very popular threading device. It threads 1, $1\frac{1}{4}$, $1\frac{1}{2}$, and 2-inch pipe. It is perfectly easy for one man to cut 2-inch threads with same. It is made both as a right-hand and a left-hand tool—neither will do both. Right-hand furnished unless otherwise specified.

Threads Pipe	inches	1 to 2
No. of Sets of Dies to Stock	each	4
Price, Complete	each	24.00
" Dies, per Set of 4 Segments	each	2.50

No. 1A ADJUSTABLE RATCHET THREADING DEVICE

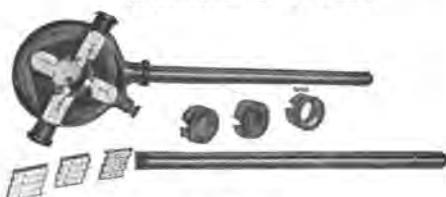


Fig. 23106D

No. 1A is in every essential like the No. 1, except that it is equipped with a ratchet. It may be used with two handles as an ordinary die stock, or with one handle inserted in the ratchet case. It is desirable for threading pipe down a trench, or against walls, between rafters, etc. Right-hand furnished unless otherwise specified.

Threads Pipe	inches	1 to 2
No. of Sets of Dies to Stock	each	4
Price, Complete	each	30.00
" Dies, per Set of 4 Segments	each	2.50

TOLEDO ADJUSTABLE PIPE THREADING DEVICES

No. 10 ADJUSTABLE THREADING DEVICE



Fig. 23107A

The No. 10 threads the entire range of sizes from 1 to 2 inches with one set of dies.

While this is not the best practice from the standpoint of die service, still this tool is remarkably efficient and threads pipe very easily.

Furnished complete with right-hand dies.

Threads Pipe.....	inches	1 to 2
No. of Sets of Dies to Stock.....		1
Price, Complete.....	each	28.00
" Dies, per Set of 4 Segments		2.75

No. 1½R ADJUSTABLE RATCHET THREADING DEVICE



Fig. 23107C

No. 1½R is offered for those who do not require to thread pipe larger than 3-inch and who do not want to invest as much money as the Toledo No. 2 costs. Its capacity is limited to two sizes, viz.; 2½ and 3-inch—8 thread. Can be furnished with 2, 2½ and 3-inch, 11½-pitch threads for oil well tubing, when so ordered, at same price.

Threads Pipe.....	inches	2½, 3
No. of Sets of Dies to Stock.....		*2

Price, Complete.....	each	50.00
" Dies, per Set of 4 Segments		4.00

*For 8-thread tool. When furnished 11½-thread, there are three sets.

No. 10A ADJUSTABLE RATCHET THREADING DEVICE



Fig. 23107B

This tool is identically the same as the No. 10, except that it has a ratchet attachment, making it desirable for use in close places where the space is restricted

Threads Pipe.....	inches	1 to 2
No. of Sets of Dies to Stock.....		1
Price, Complete.....	each	34.00
" Dies, per Set of 4 Segments		2.75

NOTE.—Left-hand dies can be used in the above tools, and can be furnished on special order. It requires, however, a separate set of left-hand dies for each size pipe.

No. 2 GEARED ADJUSTABLE THREADING DEVICE



Fig. 23107D

This tool is light, compact and very easy in operation. Neither is the ease of operation obtained at the expense of speed.

Complete with dies, ratchet and driving cross.

Threads Pipe.....	inches	2½ to 4
No. of Sets of Dies to Stock.....		4
Price, Complete.....	each	100.00
" Dies, per Set of 5 Segments.....		8.00

TOLEDO GEARED ADJUSTABLE PIPE THREADING DEVICES

No. 25 GEARED ADJUSTABLE THREADING DEVICE



Fig. 23100A

The No. 25 device will thread seven sizes of pipe, from $2\frac{1}{2}$ to 6 inches inclusive with one set of dies. The die segments are mounted on heavy steel holders, which are pushed backward or forward in their respective slots, thus accommodating the dies to the several sizes of pipe. Each holder contains a spring pawl that engages a ratchet-rack, thus holding the dies in the proper place for the pipe it is desired to thread. The above mechanism in turn engages a taper pin or post, permitting the dies to recede while in operation in conformity with the standard pipe thread taper, thus relieving the dies from friction.

This device is supplied with a set of long barrel bushings, which are bolted into the rear portion of the tool when in use, thus making the centering of the pipe and securing of straight threads easy. The tool is accurately bored to take 6-inch pipe without a bushing, but to make it easier to secure straight threads on this size also, hardened steel buttons are placed around the inside of the barrel of the die head, allowing only one-sixteenth of an inch clearance.

Each outfit is furnished with an extra set of dies, and a ratchet handle and driving cross.

Threads Pipe.....	inches	2 $\frac{1}{2}$ to 6
Weight, Net.....	pounds	152
Price.....	each	230.00
" Extra Dies.....	per set	8.00

No. 3 GEARED ADJUSTABLE THREADING DEVICE



Fig. 23100B

This tool is light, compact and easy in operation. It is strictly portable. One man can easily and quickly cut an 8-inch thread with it.

Complete with dies, ratchet and driving cross.

Threads Pipe.....	inches	4 $\frac{1}{2}$ to 8
No. of Sets of Dies to Stock..		5
Price, Complete.....	each	300.00
" Dies, per Set of 5 Segments		12.00

No. 4 GEARED ADJUSTABLE THREADING DEVICE



Fig. 23100C

The No. 4 is for use in all fields where it is desirable and necessary occasionally to cut threads on large size pipe. It may be taken to the pipe anywhere and operated. Complete with dies, ratchet and driving cross.

Threads Pipe.....	inches	9, 10, 12
No. of Sets of Dies to Stock..		3
Price, Complete.....	each	500.00
" Dies, per Set of 5 Segments		20.00

BEAVER EASY WORKING DIE STOCKS

No. 3 BEAVER JUNIOR

RATCHET



Fig. 11194A

The Beaver Junior Die Stock is simplicity itself. Consisting of a ratchet handle holding separate heads for each size die. It threads $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch. Can be used in ditches, close to walls, between rafters at the bench, in fact most anywhere. Ratchet mechanism entirely encased in head. Right or left hand as specified.

Threads Pipe	inches	$\frac{1}{8}$ to 1
Price, Complete, $\frac{1}{8}$ to 1..	each	24.00
" $\frac{3}{8}$ to 1	"	18.00
" Extra Dies (4 chasers)		
Any Size in Range	each	2.50
Price, Die Heads, $\frac{1}{8}$, $\frac{1}{4}$, or		
$\frac{3}{8}$ Inch	each	3.00
Price, Die Heads, $\frac{1}{2}$ or $\frac{3}{4}$		
Inch	each	3.50
Price, Die Heads, 1 Inch... "	each	4.00
" Ratchet Handle only "		4.00

No. 6 BEAVERETTE



Fig. 11194B

Threads all four sizes without change. The two sets of dies covering the different thread pitches are held in one plate, instantly adjusted to any size by the single handle. It is a compact tool, complete without loose parts. A universal centering device does away with loose bushings.

Right or left hand, as specified. The two sets of dies covering the two thread pitches are operated by a single handle.

It is not complicated, is strong, cuts clean threads and has no parts to lose.

Threads Pipe	inches	$\frac{1}{4}$ to $\frac{3}{4}$
Price, Complete	each	15.00
" Extra Dies, R. or L., $\frac{1}{8}$,		
$\frac{1}{4}$ and $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ in. per set		3.00

No. 25



Fig. 11194C

Threads all sizes 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2 inch, or variations from standard, without changing the dies.

It has a universal chuck that centers all sizes. No loose bushings. The No. 25 is a complete tool, no loose parts, of all steel and malleable iron construction.

Threads Pipe	inches	1 to 2
Shipping Weight	pounds	25
Price, Complete	each	30.00
" Extra Dies, R. H... "		3.50

The Universal Chuck keeps the pipe always straight without grip screws or bushings to bother.

No. 26 RATCHET



Fig. 11194D

Like the No. 25 in construction. It threads all sizes, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, and 2 inch, without changing dies.

Provided with ratchet attachment for cutting in confined places, or can be used as a regular stock. Contains a universal chuck which means pipe is always straight, without grip screws or bushings to bother. Preferred by many operators for regular work because of the more convenient application of power.

Threads Pipe	inches	1 to 2
Shipping Weight	pounds	30
Price, Complete	each	35.00
" Extra Dies, R. H... "		3.50

BEAVER EASY WORKING DIE STOCKS

No. 41



Fig. 1063A

Threads all sizes, $2\frac{1}{2}$, 3, $3\frac{1}{2}$ and 4-inch, or variations from standard without changing dies. Gears are cut steel, and in addition, are covered, which protects tool and operator. No dies to look for—they are all in the tool. Threads are easily cut on pipe in a ditch as well as at the bench. Has bushings and grip screws.

Threads Pipe.....	inches	$2\frac{1}{2}$ to 4
Shipping Weight.....	pounds	100
Price, Complete.....	each	110.00
" Extra Dies, R.H. per set		9.00

No. 80



Fig. 1063C

Constructed the same as No. 61 and uses two sets of dies. The dies are made with wings which hold them rigidly without interfering with the adjustment. The main body of the tool is steel, all parts made interchangeable. All bearings are bronze brushed.

Threads Pipe.....	inches	$4\frac{1}{2}$ to 8
Shipping Weight.....	pounds	230
Price, Complete.....	each	300.00
" Extra Dies, R. H., ($4\frac{1}{2}$ to 6), (7 to 8).....	per set	20.00

No. 61



Fig. 1063B

Of similar construction as the No. 41, except two sets of dies are used to cover the unusually large range. One set cuts $2\frac{1}{2}$, 3 and $3\frac{1}{2}$ inch, and the other set cuts 4, $4\frac{1}{2}$, 5 and 6 inch. No tool required to change the dies. Main body is steel.

Threads Pipe.....	inches	$2\frac{1}{2}$ to 6
Shipping Weight.....	pounds	200
Price, Complete.....	each	220.00
" Extra Dies, R. H. ($2\frac{1}{2}$ to $3\frac{1}{2}$), (4 to 6).....	per set	14.00

No. 90



Fig. 1063D

Similar in all respects to the No. 80, but with wider range. Dies are made with wings which hold them rigidly without interfering with the adjustment. The main body of the tool is steel, and all parts made interchangeable.

Threads Pipe.....	inches	9 to 12
Shipping Weight.....	pounds	300
Price, Complete.....	each	500.00
" Extra Dies, R. H. (9 to 10), (11 to 12).....	per set	30.00

ARMSTRONG ADJUSTABLE PIPE STOCKS AND DIES

No. 1



Fig. 8327A

1/8 TO 1/2-INCH, RIGHT HAND
Price, with 4 Dies each 9.00

1/8 TO 1/2-INCH, R. AND L. HAND
Price, with 8 Dies each 14.00

EXTRA PARTS

Price, Dies, Right or Left Hand per set 1.60

Price, Bushings each .30

" Stocks with Screws, Handle and Wrench each 3.25

Unless otherwise specified, this set is furnished $\frac{1}{8}$ to $\frac{1}{2}$ -inch, right hand.

No. 2



Fig. 8327B

1/4 TO 1-INCH, RIGHT HAND
Price, with 5 Dies each 12.00

1/4 TO 1-INCH, R. AND L. HAND
Price, with 10 Dies each 20.00

1/4 TO 1-INCH, RIGHT HAND

Price, with 6 Dies each 14.00

1/8 TO 1-INCH, R. AND L. HAND
Price, with 12 Dies each 22.00

EXTRA PARTS

Price, Dies, Right or Left Hand each 2.00

Price, Bushings " .40

" Stocks with Screws, Handle and Wrench each 4.00

Unless otherwise specified, this set is furnished $\frac{1}{4}$ to 1-inch, right hand.

Genuine Armstrong Improved Dies can be adjusted to the variations in the size of fittings.

By reason of their peculiar cutting edge, they can be worked with much less labor, and accomplish the desired results in less time than with most other dies on the market.

Armstrong Stocks and Dies have a world-wide reputation and are found in the kits of steam and gas fitters in every part of the civilized world.

No. 2½



Fig. 8327C

1/2 TO 1½-INCH, RIGHT HAND
Price, with 2 Dies each 14.00

1/2 TO 1½-INCH, R. AND L. HAND
Price, with 4 Dies each 21.00

1/4 TO 1½-INCH, RIGHT HAND
Price, with $\frac{1}{4}$ Dies each 20.00

1/4 TO 1½-INCH, R. AND L. HAND
Price, with 8 Dies each 27.00

*Double end, $\frac{1}{2} \times \frac{3}{4}$ and $1 \times 1\frac{1}{4}$ inch.

†Two double end, $\frac{1}{2} \times \frac{3}{4}$ and $1 \times 1\frac{1}{4}$, two single, $\frac{1}{4}$ and $\frac{3}{8}$ -inch.

EXTRA PARTS

Price, Double End Dies, Right or Left Hand per set 3.50

Price, Single End " 2.50

" Bushings each .60

" Stocks, with Screws, Handle and Wrench each 5.25

Unless otherwise specified, this set is furnished $\frac{1}{2}$ to $1\frac{1}{4}$ -inch, right hand.

No. 3

1/4 TO 2-INCH, RIGHT HAND
Price, with 3 Dies each 18.00

1/4 TO 2-INCH, R. AND L. HAND
Price, with 6 Dies each 30.00

1 TO 2-INCH, RIGHT HAND
Price, with 4 Dies each 21.00

1 TO 2-INCH, R. AND L. HAND
Price, with 8 Dies each 37.00

3/4 TO 2-INCH, RIGHT HAND
Price, with 5 Dies each 24.00

3/4 TO 2-INCH, R. AND L. HAND
Price, with 10 Dies each 44.00

1/2 TO 2-INCH, RIGHT HAND
Price, with 6 Dies each 27.00

1/2 TO 2-INCH, R. AND L. HAND
Price, with 12 Dies each 51.00

EXTRA PARTS

Price, Dies, Right or Left Hand per set 4.50

Price, Bushings each .75

" Stocks, with Screws, Handle and Wrench each 7.00

Unless otherwise specified, this set is furnished 1 to 2-inch, right hand.

PIPE STOCKS AND DIES

MALLEABLE STOCKS AND DIES

Nos. 0 to 1 $\frac{3}{4}$
B to D

Fig. 4626A

Nos. 2, 3 and 4
E

Fig. 4626B

Size No.	Lettered Size	Size of Dies with Stock Inches	Dimensions of Die; Inches	PRICE, EACH			
				With Dies Complete	Stocks without Dies	Dies	Bushings
0	B	1/8 to 1/2	2 x 1 1/2	8.00	3.00	1.40	.30
1	C	1/4 " 1	2 1/2 x 3/4	10.50	3.50	1.60	.40
1 1/2	DD	3/4 " 1 1/4	3 x 3/4	9.50	4.00	2.00	.60
1 3/4	D	1 " 1 1/2	3 x 3/4	9.50	4.00	2.00	.60
2	E	1 1/4 " 2	4 x 7/8	14.50	8.50	2.50	.75
3	"	2 1/2 and 3 "	5 x 1 1/4	35.00	20.00	9.00	2.00
*4	"	2 1/2 " 3	5 x 1 1/4	42.00	26.00	9.00	2.00

*Has four arms.

NYE IMPROVED SKIP-TOOTH SOLID DIES



Fig. 4626C

NYE IMPROVED SKIP-TOOTH ADJUSTABLE DIES



Fig. 4626D

Stock No.	Dimensions of Dies Inches	Size of Die Inches	Price Each	Fits Armstrong Stocks.		
				Stock No.	Size of Die Inches	Price Each
0	2x2x2 1/2	{ 1/8, 1/4, 3/8, 1/2 }	2.75	1	1/8, 1/4, 3/8, 1/2	3.50
1	2 1/2 x 2 1/2 x 3 1/4	{ 1/8, 1/4, 3/8, 1/2 }	3.00	2	1/8, 1/4, 3/8, 1/2, 3/4, 1	3.50
1 1/2 and 1 3/4	{ 3x3x3 1/4 }	{ 1/8, 1/4, 3/8, 1/2, 1, 1 1/4 }	4.00	2 1/2	1/2x3/4, 1, 1 1/4	5.00
2	4x4x4 1/2	{ 1/4, 1/2, 1, 1 1/4 }	5.00	2 1/2	1/2x3/4 D. E.	6.00
4	5x5x1 1/4	{ 1 1/2, 2 }	15.00	3	1x1 1/4 D. E.	6.00
				6	1/2, 3/4, 1, 1 1/4, 1 1/2, 2	5.00
				7	2 1/2 to 3 D. E.	25.00
					3 1/2 " 4 D. E.	35.00

WILLIAMS PIPE THREADING MACHINES



Fig. 251A

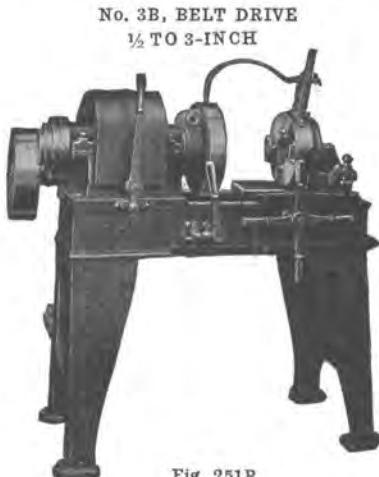


Fig. 251B

The die head is on a sliding carriage, is strong, compact and convenient. The dies are adjustable and interchangeable, a cam lever adjusts and expands the dies. A quick-operating, self-centering scroll chuck is fitted to the back side of the die head to steady pipe in cutting off. The four guides are made of tool steel and hardened very hard their entire length.

No. 3, BELT DRIVE
1 1/2 TO 6-INCH

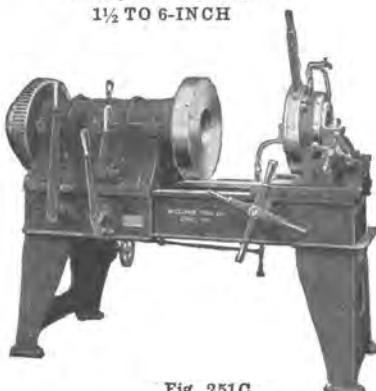


Fig. 251C

No. 12B, BELT DRIVE
3 1/2 TO 12-INCH

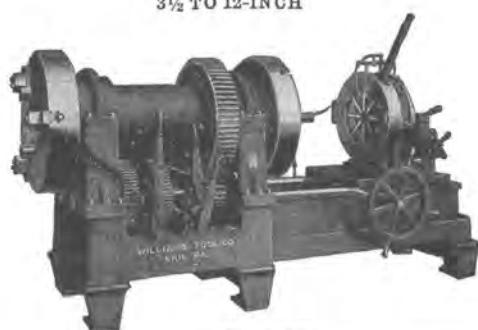


Fig. 251D

The dies are made of tool steel to secure best cutting qualities. In many cases one set cuts two sizes of pipe, thus reducing the die investment one-half, as well as the time for changing dies, as compared with a machine requiring a separate set of dies for each size of pipe. The dies are easily resharpened and when too badly worn can be recut at a small cost, thus reducing practically the only repair expense of the machine to a minimum. Order for bolt dies should state whether for V or U. S. threads, and for casing dies the inside diameter and number of threads to the inch should be given.

FORBES PIPE CUTTING AND THREADING MACHINES

WITH OPENING AND ADJUSTABLE DIES

No. 58 Hand Machine



Fig. 7104A

In the Forbes Machine, the pipe has no motion, but is held absolutely stationary in a self-centering vise which forms an integral part of the machine, while the dies are turned onto the pipe.

The die head is encircled by two cast steel rings forming a permanent bearing against cast iron shell, and eliminating all possibility of chips entering gear teeth. A die release and cam lock is attached to front of die head, which locks cam during threading operation, and automatically opens all right-hand dies upon completion of thread. Dies are then reset by a turn of a lever and all made ready for next thread instantly.

The dies are adjustable so that a thread can be cut larger or smaller than standard to allow for any variations of the fittings.

Cutting-off device is automatic in its feed and extremely simple in design. Cuts the pipe off square and leaves no burr, either inside or outside the pipe.

All machines furnished with ratchet wrench for hand operation, right-hand dies and high-speed steel cut-off tools and wrenches. Nos. 70 to 120 also furnished with standard countershaft and pipe rest.

No. 98A Hand or Power Machine



Fig. 7104B

No.	Type	Range Inches	Price Complete Each	PRICE, EACH		
				Cut-off Attachment Extra	Floor Base Extra	High Adjustable Pipe Rest
30	Hand	1/4 to 2	170.00	35.00	50.00	.....
42	"	1 " 4	370.00	.....	50.00	.....
58	"	1 " 6	635.00	.....	50.00	.....
65	"	1 " 8	1200.00	.....	70.00	.....
69	"	2 1/2 " 12	2170.00	.....	.....	.....
69-B	"	8 " 16	3000.00	.....	.....	.....
*70	Hand or Power	1/4 " 2	335.00	35.00	70.00	30.00
*84	" " "	1 " 4	535.00	.....	70.00	30.00
*96	" " "	1 " 6	835.00	.....	70.00	30.00
98-A	" " "	1 " 8	1785.00	.....	.....	.....
108-A	" " "	2 1/2 " 12	3000.00	.....	.....	.....
120	" " "	8 " 16	4500.00	.....	.....	.....

*Bench machines.

Other sizes can be furnished. Prices upon application.

LANDIS THREADING MACHINES

STATIONARY DIE HEAD TYPE

4 TO 12-INCH PIPE THREADING AND CUTTING MACHINE

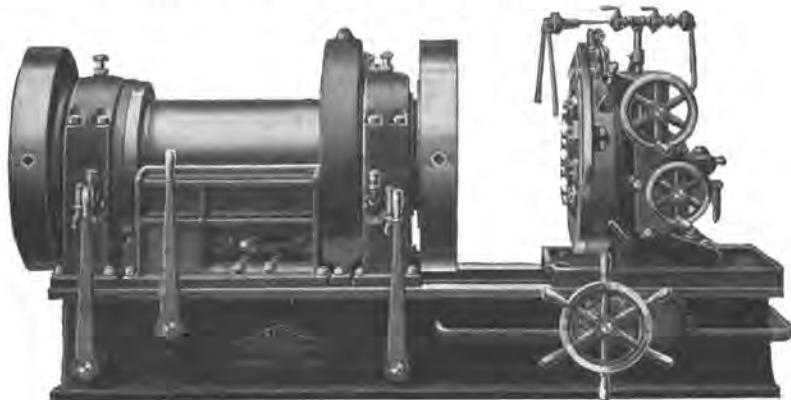


Fig. 6308A

The carriage is moved either by power or by hand. The power traverse or movement is both forward and backward and is controlled by a lever.

Automatic stops prevent die head from coming in contact with chuck in forward movement and carriage from running off guides of machine in backward movement.

Reaming tool is quickly set to position and locked with a lever. Reamer is fed to pipe by rotating cutting off feed hand wheel in a counter clock-wise direction.

The chucks have three jaws. They are geared and have universal adjustment, and are self centering to the pipe. Rear chuck is equipped with flange grips.

All gears are fully enclosed. With the exception of spindle driving gear and its pinion, all gears run in an oil bath. Shaft bearings are lubricated automatically by gravity feed pipes. The main bearings are lubricated by flat link chains which run in oil contained in large reservoirs.

**12-inch Stationary
Die Head**



Fig. 6308B

Standard equipment for 12-inch pipe machine consists of: One 6-inch (six chaser) stationary type die head; one 12-inch (eight chaser) stationary type die head; pump; wrenches; reaming device; cutting-off tool; pipe grips, 4 to 12 inches inclusive; two sets of high speed steel chasers, as follows: 1 set of 8 pitch, 4 to 6-inch pipe, for the 6-inch head, 1 set of 8 pitch, 6 to 12-inch pipe, for the 12-inch head and threaded nipple grips, 4 to 12 inches inclusive.

Countershaft is not required as machine can be driven direct from line shaft. Countershaft will be considered special and will be furnished at an extra cost.

Briggs Standard high speed steel chasers will be furnished unless otherwise ordered; but other forms of thread will be supplied when desired. Where chasers are required for threading casing and hydraulic pipe, state diameters, pitches, taper and lengths of threads.

Diameter of pulley, $16\frac{1}{2}$ inches. Width of belt, 5 inches. Speed of driving pulley, 300 r.p.m. Speed of chuck, 5.5, 6.2, 7.1, 8.2, 9.5, 11, 12.6, 14.5 r.p.m. Travel of carriage, 26 inches. Floor space required, 5x11 feet. Net weight, 13500 pounds.

Prices upon application.

WRENCHES

TRIMO MONKEY WRENCHES



Fig. 6907A

The Trimo Wrench is so constructed that the leverage increases in proportion to the increased size of the nut to which it is applied. A very desirable feature and should be kept in mind by the prospective buyer.

A very important feature is that the threads of both the jaw and nut are rounded, rendering them practically indestructible. The nut guard is a new feature and prevents accidental turning of the adjusting nut.

Size Inches	Capacity Size of Nut Inches	Price, Regular Semi-bright per Dozen
6	1	15.00
8	1 $\frac{5}{8}$	18.00
10	1 $\frac{3}{4}$	22.00
12	2 $\frac{1}{4}$	28.00
15	2 $\frac{5}{8}$	38.00
18	3 $\frac{1}{4}$	48.00
21	4 $\frac{1}{8}$	58.00

WARNOCK TRIPLE WEAR
STRAP WRENCHES

Fig. 6907B

For brass and nickel-plated pipe. Has imported linen strap which is double where wear is greatest.

Linen grip only contact with the pipe so will not scratch. Curving nose, will not crush the pipe.

When free from strain, swinging shackle gives double opening, making the Warnock the quick strap wrench.

Length Inches	Takes Pipe Inches	Pipe Complete Each	Extra Straps Each
12	1 $\frac{1}{8}$ to 2	2.50	.50
18	1 " 5	5.00	1.00

LITTLE GIANT PIPE WRENCHES

14, 18 and 24-inch



Fig. 6907C

8 and 10-inch



Fig. 6907D

This is an almost indestructible wrench. It is powerful and easy to handle. Can be put straight to a pipe like a pair of pliers and will reach corners and cramped positions.

Drop forged, hardened and tempered, and will give excellent service. Only three parts, nothing to break, no clumsy nuts, pins or springs.

Size In.	Takes Pipe In.	Number	
		Weight Lbs. Oz.	Box
8	$\frac{3}{4}$	13	6
10	1	4	6
14	$1\frac{1}{2}$	7	6
18	2	7	6
24	$2\frac{1}{2}$	7	6

NYE UNION VALVE NIPPLE
WRENCHES

Fig. 6907E

This wrench is made in such a way that when inserted in a radiator union valve it catches the nipples at the base, thereby avoiding the danger of mashing them, which so commonly occurs where a wrench handle or metal bar is used for this purpose. This tool is hollow and very light, but strong enough to stand any strain required while in use.

It takes sizes from $\frac{1}{2}$ to 2 inches, inclusive.

Price each 1.50

PIPE AND MONKEY WRENCHES

TRIMO PIPE WRENCHES

REGULAR



Fig. 4415A

NARROW JAW



Fig. 4415B

	6	8	10	14	18	24	36	48
Length, Open.....inches	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{4}$ to 2	$\frac{1}{4}$ to $2\frac{1}{2}$	$\frac{1}{2}$ to $3\frac{1}{2}$	1 to 5
Takes Pipe....."								
Price.....each	2.00	2.25	2.50	3.50	5.00	7.25	13.50	20.00
" Movable Jaws....."	.75	.80	.85	1.15	1.75	2.25	4.35	7.50
" Nuts....."	.12	.15	.20	.30	.35	.55	1.10	1.50
" Inserted Jaws....."	.35	.40	.50	.60	.70	.80	1.10	2.00
" Frames....."	.40	.45	.55	.70	.95	1.40	2.20	2.70
" Springs....."	.03	.03	.03	.03	.04	.04	.04	.04
" Frame Pins....."	.03	.03	.04	.04	.04	.04	.05	.05
" Jaw....."	.03	.03	.04	.04	.04	.04	.05	.05
" Steel Handles....."	.95	1.00	1.10	1.50	2.25	3.50	7.00	10.50
Wood Handles with Ferrule....."	.16	.16	.18	.25	...	...	...	...
Nut Guards.....per pair	.15	.15	.20	.30	.35	.45	.55	.65

Narrow jaw steel handle pipe wrench in 3 sizes only, 6, 8, and 10 in. same list.

STILLSON PIPE WRENCHES

WOOD HANDLE



Fig. 4415C

STEEL HANDLE



Fig. 4415D

	6	8	10	14	18	24	36	48
Length, Open.....inches	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{4}$ to 2	$\frac{1}{4}$ to $2\frac{1}{2}$	$\frac{1}{2}$ to $3\frac{1}{2}$	1 to 5
Takes Pipe....."								
No. of Springs to each Wrench.....	1	1	3	3	3	3	1	1
Price.....each	2.00	2.25	2.50	3.50	5.00	7.25	13.50	20.00
" Jaws....."	.75	.80	.85	1.15	1.75	2.25	4.35	7.50
" Frames....."	.38	.42	.50	.60	.75	.95	1.70	2.20
" Adjusting Nuts....."	.12	.15	.20	.30	.35	.55	1.10	1.50
" Wood Handles....."	.16	.16	.18	.25	...	...	...	...
" End Nuts....."	.15	.15	.20	.20	...	...	...	...
" Frame Pins....."	.03	.03	.04	.04	.04	.04	.05	.05
" Spring Rivets....."	.01	.01	.02	.02	.02	.02	.02	.02
" Springs....."	.10	.10	.10	.10	.10	.11	.13	.13

MONKEY WRENCHES



Fig. 4415E

	6	8	10	12	15	18	21
Size.....inches	$\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{5}{8}$	$3\frac{1}{8}$	4
Opens....."							
Price, Black.....per dozen	15.00	18.00	22.00	28.00	38.00	48.00	58.00

CHAIN PIPE WRENCHES AND VISES

VULCAN IMPROVED CHAIN PIPE WRENCHES
WITH FLAT LINK CHAIN

Fig. 37654A

No.	30	31	32	33	33½	34	35
Length..... inches	13¾	20	27	37	44½	50½	64½
Takes Pipe..... "	¾ to ¾	¾ to 1	1½ to 2½	¾ to 4	1 to 6	1½ to 8	2 to 12
Weight..... pounds	2¾	5¾	10	16	24	31	50
Price, Complete..... each	5.00	7.00	10.00	14.00	18.00	22.00	36.00
" Extra Flat Link Chains.. "	1.50	2.00	3.00	5.00	7.00	9.00	15.00
" " Cable Chains.... "	1.50	2.00	3.00	5.00	7.00	9.00	15.00
" " Jaws..... per pair	2.00	3.50	5.50	8.00	9.50	11.00	15.00
" " Studs and Nuts..... per set	.40	.50	.70	.90	1.10	1.40	1.80

PIPE VISES

Vulcan Chain
Pipe Vise
Flat Link Chain

Fig. 37654B

Reed's Hinged Pipe Vise



Fig. 37654C

VULCAN CHAIN PIPE VISES

Wrought steel frame; drop forged jaws. Hand made flat link chain; compact; rapid in action and positive in gripping pipe.

No.	1	2	4
Holds Pipe..... inches	⅛ to 2	¼ to 4	¾ to 8
Price, Complete..... each	7.00	15.00	36.00

REED'S SELF-LOCKING STANDARD PIPE VISES

Hooks and jaw clamps strengthened. Hardened solid tool steel jaws, oil-tempered, self-locking. Jaws have two bolts.

No.	70	71	72	73	*64
Holds Pipe..... inches	⅛-2	⅛-2½	⅛-3½	⅛-4½	⅛-6
Weight..... pounds	7½	10	16	25	49

Price..... each 4.25 5.00 7.50 11.00 23.50

*Extra heavy pipe vise.

NYE PIPE VISES

No. 1 CHAIN PIPE VISES



Fig. 31197A

This vise can be used as a bench vise or can be quickly attached to any post, tree or telephone pole. No nails, screws, wrench or other tools necessary to fasten the vise with the attachment.

The chain is steel, 38 inches long, and guaranteed to stand a strain of 2,000 pounds. The vise itself is a standard No. 1 Nye Bench Vise, taking pipe sizes $\frac{1}{8}$ to 2 inch, including a 2-inch coupling.

Price, Vise Complete with Chain Attachment	each	9.50
Price, Extra Upper Jaws	"	.50
" " Lower "	per pair	1.35
" Chain Attachment	ea.	4.50

BENCH PIPE VISES



Fig. 31197B

The Upper jaw is V-shaped and acts like a swivel. The strength of one finger is sufficient to tighten the vise so that it will resist any turn or pull that may be applied. Jaws are made of the best tool steel, hardened and tempered. Takes sizes from $\frac{1}{8}$ to 2 inch, including a 2-inch coupling.

Price,	each	6.00
" Extra Upper Jaws	"	.50
" " Lower "	per pair	1.35
" " Upper Jaw Clamps	"	.65

LITTLE WONDER PIPE VISES



Fig. 31197C

Made of a two-piece malleable casting. Vise base can be permanently fastened to a work-bench and the vise itself quickly detached, by removal of a cotter pin, and used as a pipe wrench. The hollow sleeve on the back of the vise proper takes a $\frac{1}{2}$ -inch pipe, with which the vise is easily held when being used separate from its base. Holds pipe from $\frac{1}{8}$ to 1-inch inclusive and weighs about 5 pounds.

Price,	each	5.00
" Extra Upper Jaws	"	.40
" " Lower "	per pair	1.20
" " Upper Jaw Clamps	"	.40

POCKET PIPE VISES

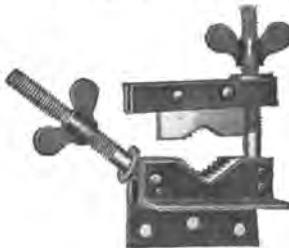


Fig. 31197D

A handy vise for handling repair work, for it can be carried in a coat pocket. It can be fastened securely with four 10-penny nails. The angle iron frame and all parts of this vise are so strong they will last a life time.

No. 1 weighs $1\frac{1}{2}$ pounds; No. 2 weighs $2\frac{1}{2}$ pounds.

Price, No. 1, Holds Pipe from $\frac{1}{8}$ to $1\frac{1}{4}$ -inch, inclusive	each	4.50
Price, No. 2, Holds Pipe from $\frac{1}{8}$ to 2-inch, inclusive	each	6.00

VISES

REED MACHINIST'S VISES

STATIONARY BOTTOM



Fig. 5764A

SWIVEL BOTTOM



Fig. 5764B

STATIONARY BOTTOM

Number	102	102½	103	103½	104	104½	165	105½	106	107	108	109
Width of Jaws inches	2	2½	3	3½	4	4½	5	5½	6	7	8	9
Opens "	3	3½	4	5	6	7	8	9	10	12	12	13
Weight pounds	10½	14½	22	29	43	57½	73	103	135	175	236	283
Price each	8.25	9.00	10.00	11.25	12.75	15.50	20.00	30.00	39.00	55.00	75.00	90.00

SWIVEL BOTTOM

Number	202	202½	203	203½	204	204½	205	205½	206	207	208	209
Width of Jaws in.	2	2½	3	3½	4	4½	5	5½	6	7	8	9
Opens "	3	3½	4	5	6	7	8	9	10	12	12	13
Weight lbs	12½	20	27	38	51	66	89	120	153	204	278	327
Price each	10.50	12.00	13.00	15.00	17.00	20.00	30.00	38.00	52.00	70.00	98.00	115.00

REED COMBINATION PIPE VISES

SWIVEL BOTTOM, REVERSIBLE PIPE JAWS



Fig. 5764C

Number.....	31	32	33	34
Width of Jaws..... inches	3½	4¼	5	6
Holds Pipe..... "	½ to 2½	½ to 3½	½ to 4½	½ to 6
Weight..... pounds	46	72	119	178
Price..... each	16.00	22.00	32.00	45.00
" Jaws (Three)..... per set	2.40	3.40	5.60	8.00

PIPE CUTTERS

TRIMO PIPE CUTTERS



Fig. 576A

The Trimo Pipe Cutter may be used with one or three wheels.

No.	Cuts Inches	Price Cutters Each	Price Cutter Wheels Each	*Price Wheel Pins per Doz.	Price Rollers Each
1	$\frac{1}{8}$ to $1\frac{1}{4}$	4.50	.40	1.30	.30
2	$\frac{1}{4}$ " 2	6.00	.40	1.30	.30
3	1 " 3	10.00	.50	1.30	.40

*With cotter pins.

BARNES PIPE CUTTERS



Fig. 576B

No.	Cuts Pipe Inches	Price Cutters Each	PRICE, PER DOZ.	Cutter Wheels	Pins
1	$\frac{1}{8}$ to 1	4.50	3.00	1.00	
2	$\frac{1}{2}$ " 2	6.00	3.60	1.00	
3	$1\frac{1}{2}$ " 3	10.00	4.80	1.00	
4	$2\frac{1}{2}$ " 4	20.00	6.00	2.00	
5	4 " 6	30.00	9.00	2.00	
6	6 " 8	40.00	9.00	2.00	
6½	8 " 10	45.00	9.00	2.00	
7	9 " 12	50.00	9.00	2.00	

CAST IRON WATER PIPE CUTTERS



Fig. 576C

Number		1
Cuts Pipe	inches	4, 6, 8
Price	each	25.00
" Extra Loops with Wheels "	" "	7.00
" " Blocks "	" "	1.50
" " Wheels "	" "	.30

SAUNDERS PIPE CUTTERS



Fig. 576D

The body of the Saunders Pipe Cutter is provided with rollers for the pipe to rest on, producing a rolling instead of sliding motion, thereby lessening the friction on the pipe. The handle is a hollow malleable iron casting riveted to the rod and not liable to come off in the ordinary usage.

All the wearing surfaces, rollers, pins and wheel, are made of the best tool steel and hardened. All parts can be duplicated.

No.	Cuts Pipe Inches	PRICE, EACH			Blocks and Wheels
		Cutter	Wheel	Pins	
1	$\frac{1}{8}$ to 1	3.00	.24	.10	1.25
2	1 " 2	4.50	.32	.10	1.75
3	2 " 3	11.00	.60	.15	2.75
4	$2\frac{1}{2}$ " 4	18.00	.60	.15	3.50
5	4 " 6	28.00	.60	.15	4.00

BEAVER SQUARE-END PIPE CUTTERS



Fig. 576E

The Beaver is ideal for electric conduit work, as well as steam, gas and water pipe. It cuts similar to a plane. It simply removes a thin shaving until the cut has been made entirely through the pipe. The cuts are square, clean and without burr and are quickly and easily made. The cutter is made of steel and malleable iron and will last indefinitely.

To operate, simply place cutter around the pipe, turn T handle until V jaws grip pipe, then revolve cutter like a die stock.

No.	Cuts Pipe Inches	Price Complete Each	Price Extra Knives per Set
1	$\frac{1}{8}$ to 1	18.00	1.20
5	$\frac{1}{2}$ " 2	20.00	1.50
10	$2\frac{1}{2}$ " 4	90.00	2.50
15	$2\frac{1}{2}$ " 6	180.00	5.00

NYE PIPE CUTTERS

NO. 2 PIPE CUTTERS



Fig. 806A

Equipped with Nye Knurled Cutter Wheels (knife blade), the kind that act like a saw, cut faster and cleaner than others and leave no burr to be filed off.

No. 1 cuts $\frac{1}{8}$ to $1\frac{1}{4}$ -inch pipe. No. 152 cuts $\frac{1}{2}$ to 2-inch pipe.

FULL VIEW CUTTER WHEEL



The No. 2 as illustrated, is tapped at the bottom for an extra handle, which obviates reaching around or over the pipe at each end.

SIDE VIEW CUTTER WHEEL
SHOWING KNIFE EDGE

Rollers and cutter wheels in the Nye Pipe Cutter are larger with wide bearings than others, insuring much longer life as well as easier operation. The bearing pins are made of tool steel.

No.	Cuts Pipe Inches	Price Each
1	$\frac{1}{8}$ to $1\frac{1}{4}$	3.75
2	$\frac{1}{2}$ " 2	5.75

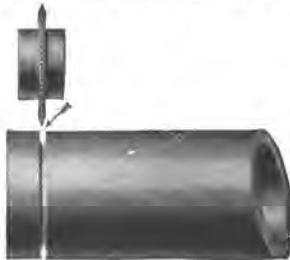
KNURLED PIPE CUTTER WHEELS

OLD STYLE CUTTER WHEEL



Nye Knurled Pipe Cutter Wheels have a thin blade, less than $\frac{1}{16}$ inch thick, and are perfectly straight from the hub to the outer edge. The cutting edge is knurled and ground to a sharp edge.

NYE KNURLED KNIFE-BLADE WHEEL



They do not simply spread the metal apart, but make a square clean cut and do the work easier than common cutter wheels. For all standard pipe cutters.

No.	PRICE, EACH			TYPE
	Barnes	Saunders	Nye	
1	.50	.50	.70	.60
2	.60	.60	.80	.60
3	.80	1.10	...	.90
4	1.00	1.10	...	...
5	1.10	1.10	...	...

CUTTER WHEEL PINS

No.	PRICE, PER DOZEN			TYPE
	Barnes	Saunders	Nye	
1	1.00	1.20	1.20	1.00
2	1.00	1.20	1.80	1.00
3	1.00	1.80	...	1.00
4	2.00	1.80	...	...
5	2.00	1.80	...	...

PIPE TOOLS

MUELLER PIPE END REAMERS

No. 2, WITH RATCHET



Fig. 10740A

The ends must be reamed after cutting if the full carrying capacity is to be retained.

The ratchet used with No. 2 is so constructed that the strain is divided into half a dozen bearings, greatly increasing the durability of the tool.

Price, Bit Brace Pattern.....each 2.50
 " No. 2 with Ratchet Small Pattern, $\frac{3}{8}$ to $1\frac{1}{4}$ -inch Pipe....each 5.00
 Price, No. 2 with Ratchet, Large Pattern, $\frac{3}{8}$ to 3-inch Pipe...each 7.50

BURRING REAMERS



Fig. 10740B

SPIRAL FLUTE

No.	Style of Shank	Capacity Pipe, Inches	Price Each	Price per Dozen
241	Bit Brace	$\frac{1}{8}$ to $\frac{1}{2}$	1.00	12.00
242	" "	$\frac{1}{8}$ " 1	1.25	15.00
242½	" "	$\frac{1}{8}$ " $1\frac{1}{4}$	1.50	18.00
243	$\frac{1}{2}$ Round	$\frac{1}{4}$ " $1\frac{1}{4}$	1.50	18.00
244	Bit Brace	$\frac{1}{4}$ " 2	3.00	36.00
246	T-handle	$\frac{1}{4}$ " 2	4.00	48.00

STRAIGHT FLUTE

No.	Style of Shank	Capacity Pipe, Inches	Price Each	Price per Dozen
1	Bit Brace	$\frac{1}{4}$ to $1\frac{1}{4}$	1.50	18.00
2	" "	$\frac{1}{4}$ " 2	3.00	36.00

PIPE TAPS



Fig. 10740C

Diam. Inches	Price Each	Diam. Inches	Price Each	Diam. Inches	Price Each
$\frac{1}{8}$	1.00	1	4.40	3	22.50
$\frac{1}{4}$	1.20	$1\frac{1}{4}$	5.00	$3\frac{1}{2}$	30.00
$\frac{3}{8}$	1.60	$1\frac{1}{2}$	6.60	4	45.00
$\frac{1}{2}$	2.00	2	10.00	...	...
$\frac{3}{4}$	2.80	$2\frac{1}{2}$	15.00	...	...

PIPE REAMERS



Fig. 10740D

Diam. Inches	Price Each	Diam. Inches	Price Each	Diam. Inches	Price Each
$\frac{1}{8}$	1.00	1	4.40	3	22.50
$\frac{1}{4}$	1.20	$1\frac{1}{4}$	5.00	$3\frac{1}{2}$	30.00
$\frac{3}{8}$	1.60	$1\frac{1}{2}$	6.60	4	45.00
$\frac{1}{2}$	2.00	2	10.00	...	...
$\frac{3}{4}$	2.80	$2\frac{1}{2}$	15.00	...	...

COMBINED DRILLS, REAMERS AND TAPS



Fig. 10740E

Sizes $\frac{1}{4}$ to $1\frac{1}{2}$ inches have shanks $\frac{9}{16} \times 1\frac{1}{2} \times 1\frac{1}{4}$ inches long.

Sizes 2 to $2\frac{1}{2}$ inches have shanks $1 \times \frac{3}{4} \times 2$ inches long.

Prices upon application.

CROWN UNION VALVE NIPPLE WRENCHES



Fig. 10740F

Strong enough to stand any strain required while in use. Made of semi-steel.

It takes from $\frac{1}{2}$ to 2-inch nipples.

Price.....each 1.50

PLUMBERS' TOOLS

STAR HACK SAW BLADES



Fig. 21333A

One of the most essential tools of the mechanic who works with metal is his hack saw blade. A good blade which cuts fast and wears long, so as not to require frequent changing, means a considerable saving of time in the course of a day's work and a considerable saving of patience.

Blades with 14 teeth to the inch are supplied unless 24 teeth or fine is specified.

Length Inches	Width Inches	Price per Doz.
8	7/8	.70
9	7/8	.75
10	1 1/2	.85
11	1 1/2	.95
12	1 1/2	1.00
*12	2 1/8	1.49

*For power machine.

NOS. 10 AND 11 ADJUSTABLE HACK SAW FRAMES



Fig. 21333B

A standard in hack saw frames. The style of adjustment is such as to give extra strength in the middle of the back where there is the greatest strain so that there is no danger of the frame bowing in the back. A knurled check nut screwing down and overlapping the end of the blade holds it in place while it is being inserted in the frame.

Adjustable for blades from 8 to 12 inches.

No.	Depth Under Inches	Price with One 10-inch Blade Each
10	2 3/8	2.25
11	3 1/2	2.40

No. 4 CAST IRON HACK SAW FRAMES



Fig. 21333C

Black enameled cast-iron frame. Blades are strained by thumb nut and screw stud and may be faced in four directions.

No.	Takes Blade Inches	Depth Under Back Inches	Price without Blades Each
4A	8	2 1/4	.55
4B	9	2 1/4	.60
4C	10	2 1/4	.65
4D	12	2 1/4	.70

No. 8 PLUMBERS' COMPASS SAWS



Fig. 21333D

Equipped with an extra heavy blade, 16 gauge. Especially made for plumbers' use and rough, heavy work.

Size Inches	Price per Dozen	Size Inches	Price per Dozen
12	5.00	16	5.50
14	5.25	-	-

NO. 3 NEST OF SAWS



Fig. 21333E

Consists of one each, keyhole, compass and table or pruning saw.

Price, Handle and Tightener	.....per dozen	1.75
Price, Keyhole Blade, 10 Inches Long	.....per dozen	2.00
Price, Compass Blades, 14 Inches Long	.....per dozen	2.75
Price, Pruning Blades, 16 Inches Long	.....per dozen	5.50
Price, Nests, Complete	"	12.00

PLUMBERS' TOOLS

COLEMAN IMPROVED FORCE PUMPS

For Sinks with Strainer



Fig. 14549A

Cup Reversed for Open Drains



Fig. 14549B

COLEMAN FLEXIBLE CLOSET AUGERS



Fig. 14549D

A powerful pump, with a suction of 50 pounds and a force of 100 pounds or more. Made expressly for removing obstructions from plumbing fixtures. Has a large reversible red rubber cup, with cast brass screw connections. Will cover any opening up to 5 inches in diameter. Pump barrel is made of seamless brass tubing. Piston, handle and all screw connections are made of cast brass. Piston is packed with graphite packing rings.

Price, Pump with Cup..... each 12.00
" Cup only " 1.50
" Graphite Packing Rings per set 1.50

COLEMAN FLEXIBLE SEWER AND PIPE AUGERS



Fig. 14549C

Made of high-grade oil tempered steel wire, in different lengths and sizes joined together with brass bushings and steel studs. As many sections as necessary can be used to reach stoppage. It will turn a bend or trap.

Size Wire In.	Gauge Wire	Length Feet	Price per Foot
3/16	16	10 and 20	.15
1/4	16	10 " 20	.20
3/8	14	6, 9, 15, 25 and 50	.35
1/2	12	6, 9, 15, 25 " 50	.40
5/8	11	15, 25 and 50	.45
3/4	10	*10	.55
1	9	*10	.65

*Sections.

Length Coil Feet	PRICE EACH	
	Standardized	Pack Enamel
3	5.50	4.00
6	6.50	5.00
9	.....	6.00
12	.....	8.00

COLEMAN SEWER RODS

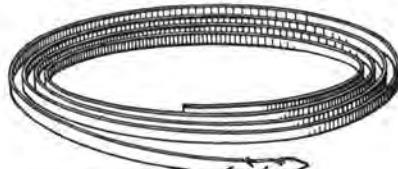


Fig. 14549E

Made of special sewer rod steel. For clearing out straight sewers or drains.

Size Rod Inches	Length, Feet	Price per Foot
1/4 x 1 1/16	25, 50, 75 and 100	.07 1/2
1/2 x 1 1/16	25, 50, 75 " 100	.10
3/4 x 1 1/16	25, 50, 75 " 100	.15
1 1/4 x 1 1/8	25, 50, 75 " 100	.20
1 1/8 x 1 1/4	25, 50, 75 " 100	.25
1 1/8 x 1 1/2	25, 50, 75 " 100	.30

Special lengths and sizes furnished on request.

PLUMBERS' TOOLS

PLUMBER'S FRIEND



Fig. 17888A

FORCE CUP



Fig. 17888B

PLUMBERS' FRIEND

Size.....	.....inches	4	5	6
Price.....	.....each	1.35	1.60	2.60

FORCE CUP

Size.....	No. 1 Small	No. 2 Med.	No. 3 Large	
Price.....each	.50	.75	1.00

PLUMBER'S TOOL BAG



Fig. 17888C

PLUMBER'S TOOL ROLL



Fig. 17888D

PLUMBERS' TOOL BAGS

Plumbers' tool bags are made of heavy russet grain leather, with inside pocket for small tools. Length, 22 inches; width, 7 inches; height, 10 inches.
 Price, Regular.....each 7.20 Add for Saw Sheath.....each .75
 " Split....." 5.80 " " Leather Handle riveted on " .75

PLUMBERS' TOOL ROLLS

Plumbers' tool rolls are made of 18-ounce white canvas with thirty pockets and leather strap and handle. Length, 56 inches; width, 24 inches.
 Price.....each 4.50

ALL STEEL GRIPS

FEATURES.—This grip is ideally adapted to painters and enginemens. It is water-proof and water-tight. Affords perfect protection to clothes and equipment and can be washed off and kept clean and neat. Looks like a traveling bag and is no heavier. Will not warp, or soak up. If desired, can be fitted with soap and towel box or time card racks at extra charge. Also furnished with tray at .35 extra.

FINISH.—Brown or black baked enamel (3 coats.)

FITTINGS.—Solid brass corners, side catches and Yale notch locks. Leather handle with steel core.



Fig. 17888E

Style.....	214-X	216-DD	218-D	220-E	222-F
Dimensions.....inches	14x7x9	16x9x11	18x10x13	20x11x13	22x11x13
Price.....each	4.40	4.65	4.90	5.15	5.40

PLUMBERS' TOOLS

TAP BORERS



Fig. 1445A

Price each .50

LEAD PIPE EXPANDING PLIERS



Fig. 1445B

Price each 2.00

DRESSERS



Fig. 1445C

Price, Boxwood each 1.40

BENDING SPRINGS



Fig. 1445D

Size inches $1\frac{1}{4}$ $1\frac{1}{2}$ 2
Price each 1.30 2.00 2.50

WING DIVIDERS



Fig. 1445E

Size inches 5 or 6 8
Price each .60 .75

OVAL SHAVE HOOKS



Fig. 1445F

Price each .50

TURN PINS



Fig. 1445G

Price, Nos. 1, 2 and 3, Boxwood each .50

DRIFT PLUGS



Fig. 1445H

Price, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-inch Boxwood each .45

BENDING PINS



Fig. 1445J

Price each .70

COMPASSES



Fig. 1445K

Price, 6-inch each .50

PLUMBERS' TOOLS

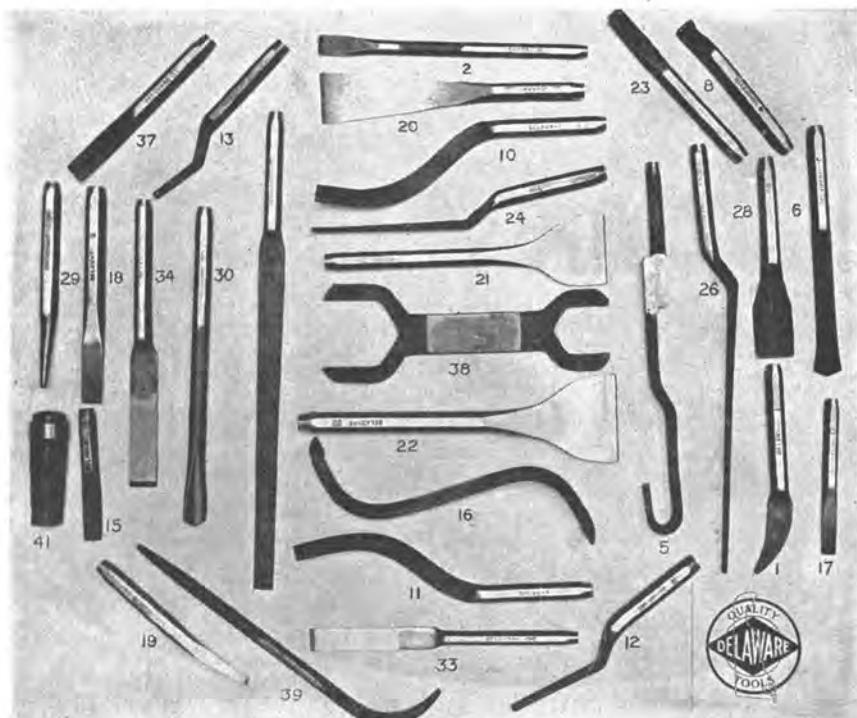


Fig. 7545A

No.	Description	Price Each	No.	Description	Price Each
1	Bent Pickling Chisel, 8-inch.	1.58	25	Gasket Iron, $\frac{5}{8} \times 14$ -inch	1.84
2	Brick Chisel, $\frac{1}{2} \times 10$ -inch	1.42	26	" " $\frac{5}{8} \times 16$ "	2.10
3	" " $\frac{5}{8} \times 12$ "	1.58	27	Spring Gasket Iron $\frac{5}{8} \times 18$ -inch	1.38
3½	" " $\frac{3}{4} \times 24$ "	4.46	28	Heavy Curved Packing Chisel, $\frac{5}{8} \times 7\frac{1}{2} \times 1\frac{1}{2}$ inch	1.42
4	Cape " $\frac{1}{2} \times 7$ "	1.12	29	Round Nosed Chisel, 8-inch	1.42
5	Caulking Iron, Ceiling, 14-inch	5.26	30	Star Drill, 1x12-inch	3.78
6	" " Double, 9 "	1.70	30½	" " 1x24 "	4.72
7	" " " 16 "	2.38	31	" " $\frac{3}{4} \times 12$ "	2.10
8	" " $1\frac{1}{2}$ -inch Bend Outside 6-inch	1.44	31A	" " $\frac{5}{8} \times 12$ "	1.18
9	" " $1\frac{1}{8}$ " Inside 6 "	1.44	31B	" " $\frac{1}{2} \times 12$ "	1.42
10	" L. H. Offset, 12-inch	2.10	32	Straight Joint Chisel, 10-inch	1.42
11	" R. H. " 12 "	2.10	33	Wood Chisel, $\frac{3}{4} \times 10$ -inch	1.42
12	" 8-inch	1.44	33½	" " $\frac{5}{8} \times 10$ "	1.14
13	" Short 7-inch	1.44	34	" " 1x11 "	1.74
14	" Inside Stub $4\frac{1}{8}$ -inch	1.26	35½	" " $1\frac{1}{4} \times 11$ "	2.64
15	" Outside " $4\frac{1}{8}$ "	1.26	35	Gouge, $1\frac{1}{8} \times 11$ -inch Outside Bevel	2.52
16	" S Shape	2.62	35½	" " $1\frac{1}{8} \times 11$ " Inside "	2.74
17	Cold Caisel, $\frac{1}{2} \times 5\frac{1}{2}$ -inch	.86	36	Caulking Iron Outside, 7-inch	1.42
18	" " $\frac{5}{8} \times 8$ "	1.90	37	" " Inside, 7 "	1.42
19	Diamond Nose Chisel	1.42	38	Closet Spud Wrench, 1½ and 2-inch	3.04
20	Floor Chisel, $\frac{5}{8} \times 10 \times 2$ -inch	2.38	39	Bending Pin	1.06
21	" " $\frac{5}{8} \times 10 \times 2\frac{1}{2}$ -inch	2.90	40	Wrecking Tool, Heavy	6.94
22	" " $\frac{3}{4} \times 12 \times 3\frac{1}{4}$ "	3.82	41	Swedging Tool, 2-inch	.95
23	Gasket Iron $\frac{1}{2}$ -inch Bend, 7-inch	1.42	42	" " $1\frac{1}{4}, 1\frac{1}{2}, 1\frac{1}{2}$ Combination	1.60
	" $\frac{5}{8} \times 11$ -inch	1.44			

PLUMBERS' TOOLS AND REPAIR PLUGS

PERKES COMBINATION TEST PUMPS



Fig. 6898A

This pump is especially adapted for testing soil pipe, proving gas pipe and cleaning water mains.

There are no stuffing boxes and all valves are on the outside. It works with air or water.

Price each

BIBB SEAT DRESSERS



Fig. 6898B

Price, with $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ -inch Cutters each 2.50
Price, Extra Cutters per dozen 3.60

BOILER REPAIR



Fig. 6898C

A simple and effective device for repairing leaks in range boilers. Can be quickly adjusted and closed absolutely tight. Fitted with an extra quality rubber washer which will stand the hottest water. Price each .50

NYE WIPING CLOTHS



Fig. 6898D

BEST QUALITY HERRINGBONE TICKING, 16-PLY DRY

Size Inches	Price per Doz.	Size Inches	Price per Doz.
2 x2	4.40	$3\frac{1}{2} \times 3\frac{1}{2}$	5.00
$2\frac{1}{2} \times 2\frac{1}{2}$	4.40	4 x4	5.35
3 x3	4.40	.....	.....

ENGLISH MOLESKIN 8-PLY DRY

Size Inches	Price per Doz.	Size Inches	Price per Doz.
2 x2	6.40	$3\frac{1}{2} \times 3\frac{1}{2}$	7.00
$2\frac{1}{2} \times 2\frac{1}{2}$	6.40	4 x4	7.50
3 x3	6.40	.....	.....

LEAD PIPE CUTTERS



Fig. 6898E

Price, Nickel-plated each 2.50
" Japanned " 2.00

RAPID TAP PLUGS



Fig. 6898F

Invaluable for every plumber, engineer, steam fitter and all repair men generally. It makes and taps its own hole—no drilling required.

Size Thread In.	Price per Doz.	Size Thread In.	Price per Doz.
$\frac{1}{4}$	3.25	$\frac{7}{16}$	4.00
$\frac{5}{16}$	3.50	$\frac{1}{2}$	4.00
$\frac{3}{8}$	3.50	$\frac{9}{16}$	4.25

LADLES, POTS AND JOINT RUNNERS

MELTING LADLES



Fig. 2759A

All ladles double-lipped drop-forged. Capacity is weight of lead which ladle will hold when full.

Capacity Lead Pounds	Diameter of Bowl In.	Length of Handle In.	Price per Dozen
1	2½	10	2.75
1½	3	11	3.50
3¼	3½	13	4.00
4	4	14	4.75
8½	5	20	6.50
18	6	22	8.00
26	7	24	12.00
45	8	30	15.00
57	9	32	20.00
80	10	36	24.00

POURING LADLES



Fig. 2759B

Size.....	.....inches	5	8
Price.....	.....each	2.00	3.00

SOLDER POTS



Fig. 2759C

Diam. In.	Price Each	Diam. In.	Price Each	Diam. In.	Price Each
4	.35	8	1.25	13½	4.00
5	.40	10	1.80	15	5.00
6	.70	12	3.20	18	8.00

POURING POTS



Fig. 2759D

Size.....	.....inches	6x8
Price.....	.....each	3.50

ASBESTOS LEAD JOINT
RUNNERS

Fig. 2759E

For making lead joints in cast iron gas and water pipe, asbestos lead joint runners are most practical and efficient.

Made of prepared asbestos rope of square cross-section, having a ferrule on each end, and provided with clamping device for fastening in place on the pipe.

Owing to the shape of the device and its flexibility, it covers the pipe joint snugly, so that there is no leakage of lead nor any unnecessary lead left protruding from the joint, to be afterward chipped off.

Size No.	Size In.	For Pipe In.	Price Each
1	¾	2, 3 and 4	2.15
2	¾	4, 5 " 6	2.35
3	1	6, 8 " 10	4.15
4	1	10, 12 " 14	5.40
5	1¼	16, 18 " 20	11.00
6	1½	24	12.25
7	1¾	30	13.95
8	1½	36	15.75
9	1¼	42	17.65
10	1¼	48	18.80

C & L FIREPOTS AND TORCHES

FIREPOTS

No. 1, Gasoline



Fig. 7689A

No. 71, Gasoline



Fig. 7689B

No. 1 double needle burner produces a clear blue flame, intensely hot, and using but little fuel. Will handle a pair of 12-pound coppers and 6-inch pot of metal at same time.

The No. 71 fire pot is smokeless, odorless and noiseless. The improved double needle burner superheats the gas, producing the highest degree of heat from the fuel. Has double heating surfaces and sub-flame.

No.....	1	71
Capacity.....	pints	8
Price.....	each	27.20

No. 22, Gasoline



Fig. 7689C

No. 12, Gasoline



Fig. 7689D

No. 22 has burners and coils made of extra heavy steel. This firepot produces a steady blue flame in hard wind or extreme cold. Patented three piece coil cap and top plate can be removed by unscrewing three nuts exposing burner and coil. Tank is seamless drawn steel.

No. 12 is like No. 22, except fitted with rubber bulb.

No.....	22	12
Capacity.....	pints	8
Price.....	each	15.00

TORCHES

No. 208, Gasoline or Kerosene



Fig. 7689E

No. 210, Gasoline or Kerosene



Fig. 7689F

No. 208 is fitted with new patented burner having double needles. The burner is made of generator metal and produces a steady blue flame of intense heat. The tank is of heavy gauge seamless drawn brass reinforced and fitted with automatic brass pump.

No. 210 is the same as No. 208, except with capacity of 2 pints.

Burner hooks are removable.

No.....	208	210
Capacity.....	pints	2
Price.....	each	17.00 15.40

No. 32, Gasoline

No. 144, Gasoline



Fig. 7689G



Fig. 7689H

No. 32 has integral hook and support for holding soldering copper. Burner is made of special generator metal, producing an intensely hot blue flame. Patented automatic brass pump in tank, with automatic double spring check, supplies required air pressure.

The No. 144 torch is made to meet the demand for an inexpensive competitive tool. The quality is the best that the price will warrant. The tank is made of polished brass. Burner has an open generator that injects the air which mixes with the gas, producing a steady blue flame.

Burner hooks are removable.

No.....	32	144
Capacity.....	pints	2
Price.....	each	16.00 10.00

GALVANIZED STEEL TANKS

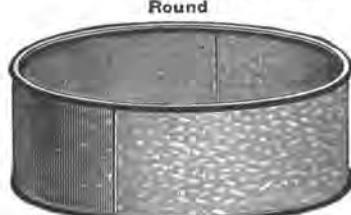


Fig. 15643A

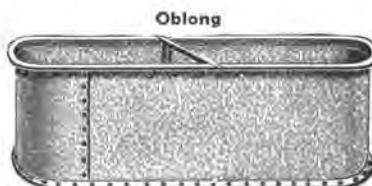


Fig. 15643B



Fig. 15643C
ROUND TANKS

Diam. No.	Ht. Ft.	Cap. Gals.	Wt. Lbs.	Price Each	No.	Diam. Ft.	Ht. Ft.	Cap. Gals.	Wt. Lbs.	Price Each	
R 32	3	2	91	69	12.30	R 55	5	5	675	211	37.40
R 42	4	2	162	97	15.80	R 56	5	6	810	240	43.20
R425	4	2 $\frac{1}{2}$	215	106	18.00	R 58	5	8	1096	285	55.10
R 43	4	3	254	115	20.40	R 62	6	2	384	167	25.50
R 44	4	4	338	145	24.80	R625	6	2 $\frac{1}{2}$	480	184	29.40
R 45	4	5	423	168	29.60	R 63	6	3	583	193	33.30
R 46	4	6	508	191	34.40	R 64	6	4	768	237	43.50
R 48	4	8	688	220	44.00	R 65	6	5	966	256	51.20
R 52	5	2	262	129	20.00	R 72	7	2	484	206	32.30
R525	5	2 $\frac{1}{2}$	342	141	23.00	R 82	8	2	691	245	42.00
R 53	5	3	411	154	26.10	R102	10	2	1089	340	58.50
R 54	5	4	548	181	31.50	R825	8	2 $\frac{1}{2}$	864	270	62.80

OBLONG TANKS

	Width No.	Ht. Ft.	Lgth. Ft.	Cap. Gals.	Wt. Lbs.	Price Each		Width No.	Ht. Ft.	Lgth. Ft.	Cap. Gals.	Wt. Lbs.	Price Each		
RE	224	2	2	4	91	74	12.60	RE	3210	3	2	10	384	185	34.40
RE	225	2	2	5	117	88	15.20	RE	428	4	2	8	386	169	32.40
RE	226	2	2	6	144	102	17.70	RE	4210	4	2	10	496	203	39.30
RE	227	2	2	7	170	121	20.30	RE	4212	4	2	12	606	243	46.50
RE	228	2	2	8	197	135	22.80	RE	4216	4	2	16	826	320	60.30
RE	2210	2	2	10	250	166	27.90	RE	5216	5	2	16	1072	375	68.40
RE	2258	2	2 ¹ ₂	8	246	151	26.10	RE	6210	6	2	10	813	262	50.40
RE	2525	2 ¹ ₂	2	5	145	93	17.00	RE	6216	6	2	16	1218	427	76.40
RE	2526	2 ¹ ₂	2	6	178	110	19.80	RE25258	2 ¹ ₂	2 ¹ ₂	8	305	153	29.70	
RE	326	3	2	6	213	124	21.80	RE	3258	3	2 ¹ ₂	8	370	165	32.40
RE	2528	2 ¹ ₂	2	8	245	141	25.50	RE	32510	3	2 ¹ ₂	10	472	200	39.60
RE	2E25210	2 ¹ ₂	2	10	312	177	31.20	RE	4258	4	2 ¹ ₂	8	485	180	37.10
RE	328	3	2	8	295	156	28.10	RE	42510	4	2 ¹ ₂	10	646	226	44.90

150 28.10 RE42310
RECTANGULAR TANKS

CONDUCTOR PIPE, VENTILATORS, ETC.

SQUARE ELBOW

SQUARE SHOE

SQUARE CONDUCTOR PIPE

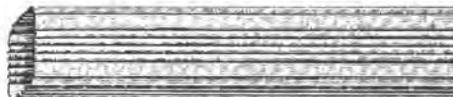


Fig. 18649A



Fig. 18649B



Fig. 18649C

SQUARE CONDUCTOR PIPE—GALVANIZED

Size.....	inches	$1\frac{3}{4} \times 2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{3}{4} \times 4\frac{1}{4}$
Weight (Approximate) per 100 feet.....	pounds	50	60	80
Price	per foot	.14	.16	.21

CONDUCTOR ELBOWS AND SHOES—GALVANIZED

Size.....	inches	$1\frac{3}{4} \times 2\frac{1}{4}$	$2\frac{3}{8} \times 3\frac{1}{4}$	$2\frac{3}{4} \times 3\frac{1}{4}$
Price, Elbows.....		.40	.50	.65
" Shoes.....		.50	.60	.80

STAR

Fig. 18649D

GLOBE

Fig. 18649E

STAR AND GLOBE VENTILATORS

Size.....	inches	2	3	4	5	6	7	8	10
Price, Star or Globe.....	each	1.00	1.50	1.75	2.50	3.40	4.00	4.65	5.75
Size.....	inches	12	14	16	18	20	24	30	36
Price, Star or Globe.....	each	6.75	13.00	20.00	27.00	33.00	40.00	65.00	120.00

McGUIRE ADJUSTABLE PLUMBERS' ROOF FLASHES**No. 1**

Fig. 18649F

These flashes are made of copper or galvanized steel with heavy lead calking ring and cast iron support ring, large apron. Made in two styles, Nos. 1 and 2. No. 1 adjusts from $\frac{1}{4}$ pitch to $\frac{1}{2}$ pitch, and No. 2 adjusts from $\frac{1}{3}$ pitch to flat. All sizes from $1\frac{1}{4}$ -inch to 6-inch will fit wrought or cast pipe. Standard or extra heavy, $1\frac{1}{2}$ -inch flange fits $1\frac{1}{4}$ -inch also. Will never leak, quick to put on, nice appearance and durable.

No. 2

Fig. 18649G

Size.....	inches	$1\frac{1}{4}-1\frac{1}{2}$	2	3	4	5	6
Price, Galvanized Iron.....	per dozen	8.00	10.00	11.00	12.00	17.00	30.00
" Copper.....	"	15.00	17.00	19.00	20.00	27.00	40.00

CONDUCTOR PIPE, ETC.

PLAIN ROUND, GALVANIZED CONDUCTOR PIPE



Fig. 17917A

PLAIN AND CORRUGATED ROUND CONDUCTOR PIPE

Size.....	inches	1½	2	2½	3	3½	4	5	6
Price, Standard Gauge, per ft.		.11	.13	.14	.15	.18	.20	.25	.30

In 10-foot lengths, 250 feet in a crate.

PLAIN AND CORRUGATED ROUND ELBOWS

No. 1 45° ANGLE	No. 2 60° ANGLE	No. 3 75° ANGLE	No. 4 90° ANGLE	SHOE 75° ANGLE
--------------------	--------------------	--------------------	--------------------	-------------------



Fig. 17917B



Fig. 17917C



Fig. 17917D



Fig. 17917E



Fig. 17917F

Made of triple coated galvanized steel. Cannot rust. Made with lock seam the entire length.

Size.....	inches	2	3	4	5	6
Price, Elbows.....	per dozen	3.60	4.32	7.20	15.00	18.00
" Shoes.....	"	4.80	5.76	9.00	18.00	21.60

CONDUCTOR STRAINER



Fig. 17917G

EAVES TROUGH HANGER
STANDARD TWISTED

Fig. 17917H

EAVES TROUGH HANGERS

Size.....	inches	3, 3½, 4	4½	5	6	7	8
Price, Single Bead.....	per gross	2.75	3.00	3.00	3.50	4.00	4.50
" Double "	"	3.00	3.25	3.25	3.75	4.25	4.75

GALVANIZED CONDUCTOR STRAINERS

Size.....	inches	2	3	4	5	6
Price.....	per dozen	1.50	2.00	3.00	5.00	6.00

EAVES TROUGH**SINGLE BEAD, LAP JOINT—GALVANIZED IRON**

Fig. 18706A

Size.....	inches	3½	4	4½	5	6	7	8
Price, Single Bead, No. 29 Gauge.....	per foot	.14	.16	.18	.19	.23	.27	.31
" Double " " 29 "	"	.19	.21	.23	.24	.28	.32	.36

SINGLE BEAD, SLIP JOINT—GALVANIZED IRON

Fig. 18706B

Size.....	inches	3½	4	4½	5	6	7	8
Price, Single Bead, No. 29 Gauge.....	per foot	.15	.17	.19	.20	.25	.29	.33
" Double " " 29 "	"	.20	.22	.24	.25	.30	.34	.38

In 10-foot lengths, 250 feet in a crate

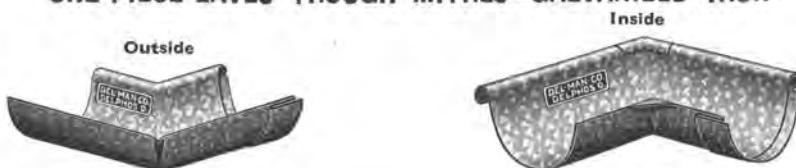
ONE PIECE EAVES TROUGH MITRES—GALVANIZED IRON

Fig. 18706C



Fig. 18706D

LAP JOINT MITRES

Size.....	inches	3½	4	4½	5	6	7	8
Price, Single Bead, No. 29 Gauge.....	per doz.	3.25	3.50	4.00	4.00	5.00	6.50	8.00
" Double " " 29 "	"	4.25	4.50	5.00	5.00	6.00	7.50	9.00

SLIP JOINT MITRES

Size.....	inches	3½	4	4½	5	6	7	8
Price, Single Bead, No. 29 Gauge.....	per doz.	4.25	4.50	5.00	5.00	6.00	7.50	9.00
" Double " " 29 "	"	5.25	5.50	6.00	6.00	7.00	8.50	10.00

END PIECES, ENDS AND DROPS

Fig. 18706E



C



B

Size.....	inches	2	3	3½	4	4½	5	6	7	8
Price, End Pcs., Single Bead..	per doz.	2.50	2.70	3.00	3.00	3.60	4.00	4.20		
" " " Double "	"	3.10	3.30	3.60	3.60	4.30	4.75	5.00		
" B Drops only	"	.80	1.00	1.10	1.20	1.30	1.30	1.60		
" C Ends	"	1.30	1.50	1.60	1.60	1.90	2.30	2.80		

GALVANIZED CANS AND PAILS



Fig. 22086A



Fig. 22086B

WATER PAIL



Fig. 22086D



Fig. 22086E

PLAIN ASH CANS
WITHOUT COVERS

No.	Capacity Gallons	Size Inches	Price per Doz.
2½	11 3/4	14x18	44.30
3	17	15x26	51.80
4	22	17x26	59.00
5	24 3/4	18x26	66.60
6	31 1/2	20x26	77.30

No.	Size Inches	No.	Size Inches	No.	Size Inches
6 1/2	14x17 3/4	8	17x26	10	20x26
7	15x26	9	18x26	..	..

Prices upon application.

GARBAGE CANS



Fig. 22086C

WATER PAILS

No.	Capacity Quarts	Size Inches	Price per Doz.
82	8	9 3/4x8 1/2	4.95
102	10	10 1/2x8 3/4	5.60
122	12	11 x10	6.15
142	14	11 1/2x10 1/4	6.90
162	16	11 1/2x10 7/8	8.35

FIRE PAILS, ROUND BOTTOMS

No.	Size Inches	No.	Size Inches	No.	Size Inches
210	10	211	10 1/2	212	12
212	12	213	10 1/2x10 3/4	214	14
214	14	215	11 x12	..	..

OILY WASTE CANS



Fig. 22086F

No.	Diam., Inches Top	Diam., Inches Bottom	Height Inches	Price per Dozen	No.	Size Inches	Height Inches	Price Each
G0000	10 3/4	9 3/4	8 5/8	11.50	1	11 1/4x11 1/4	30	3.05
G000	10 3/4	9 3/4	9 5/8	13.90	2	12 x15 1/2	36	3.90
G00	12	11	10 1/2	18.50	3	13 x17 1/2	36	5.20
G02	12 3/4	11 3/4	12 1/4	22.00	4	14 1/2x19 1/4	36	6.40
G03	14 1/8	13	14 1/4	26.00	5	15 1/4x21 1/4	36	7.80
G04	14 1/8	13	16 5/8	30.00	6	18 3/4x22 1/4	48	11.60

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